TUGAS AKHIR

DISAIN STRUKTUR RUANG BENTUK KUBAH SATU LAPIS

Disusun Oleh :

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No. Mhs	:	**93 310 055**
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JURUSAN TEKNIK SIPIL
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
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Diajukan kepada Universitas Islam Indonesia
Untuk memenuhi sebagian persyaratan memperoleh
Derajat Sarjana Teknik Sipil

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Lembar Persembahan

Tugas Akhir ini kupersembahkan kepada :
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Tugas akhir berjudul "Disain Struktur Ruang Bentuk Kubah Satu Lapis" bertujuan untuk memberikan pengenalan terhadap struktur ruang. Dimana dalam perkuliahan tingkat strata satu, masalah struktur ruang ini belum banyak dibicarakan. Sehingga dirasa perlu dijadikan tambahan pengetahuan tentang bagian lain pemakaian baja.

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Penyusun

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BAB I

PENDAHULUAN

Latar Belakang

Dewasa ini banyak aktifitas manusia yang dilakukan secara bersamaan yang membutuhkan ruang tertutup yang luas. Misalnya pertandingan olahraga, pertunjukan kesenian, kegiatan ibadah dan pertemuan yang dihadiri banyak peserta. Oleh karena itu kebutuhan akan ruang yang luas semakin meningkat. Ruang tersebut harus dapat memberikan keleluasaan gerak sehingga tidak mengganggu aktifitas tersebut. Namun kelemahan yang terdapat pada struktur penutup yang umum dijumpai adalah struktur dengan penggunaan penopang antara yang banyak sehingga menghambat keleluasaan penggunaan ruang. Melihat fenomena tersebut maka penggunaan struktur ruang menjadi sangat menguntungkan. Hal ini karena struktur ruang memiliki kelebihan untuk menutupi ruang yang luas dengan menggunakan sedikit atau tanpa penopang antara.

Salah satu jenis struktur ruang adalah struktur bentuk kubah. Kubah merupakan salah satu bentuk konstruksi yang paling tua, dan sejak ditemukannya merupakan sebuah elemen tetap dalam arsitektur. Kubah itu memungkinkan ditutupnya ruang secara maksimum dengan permukaan minimum dan biaya bahan yang diperlukan untuk konstruksi dapat dipertahankan murah.

Berkat lengkung gandanya kubah merupakan salah satu bentuk yang paling cocok sebagai penutup ruang besar. Kubah rangka ruang yang dilaksanakan dari baja, sejak munculnya mendapat sukses besar. Bangunan bermatra besar hampir selalu dilaksanakan dengan kubah rangka ruang. Kubah ini terdiri atas elemen yang ditempatkan pada permukaan kubah dan bagian lurus yang persilangannya terdapat pada permukaan itu sehingga ruang dalam tetap bebas sama sekali. Kubah rangka ruang merupakan contoh khas dari konstruksi trimatra. Sedangkan di Indonesia, kubah masih dengan struktur ruang masih jarang digunakan untuk bangunan yang relatif luas.

Kebanyakan kubah yang dibuat sekarang ini adalah prefab, maksudnya pelaksanaannya tidak banyak membutuhkan panjang batang yang berbeda. Berat konstruksi kubah rangka ruang memiliki keunggulan jika dibandingkan dengan konstruksi tradisional, juga untuk bentangan kecil sekalipun, misalnya kubah dengan struktur beton. Kubah dengan struktur beton selain memiliki berat struktur yang besar juga dalam pelaksanaannya membutuhkan perancah yang banyak dan rumit.

Kelebihan lain dari struktur ruang kubah ini adalah memiliki bentuk yang indah dan sangat ringan, sehingga banyak digemari oleh arsitek. Disamping itu struktur ruang ini mudah dalam pengerjaannya. Sehingga struktur kubah ini secara keseluruhan lebih ekonomis.

Untuk bentangan besar sekali, sering kali kubah merupakan pemecahan yang paling ekonomis. Dulu kubah dipakai untuk menaungi gedung pameran, ruang konser, stadion dan planetarium. Pada masa kini kubah itu terdapat pada atap ruang

dansa, gedung olahraga skating, kolam renang, rumah hijau, toko serba ada, bangunan masjid dan ruang kerja.

1.2 Tujuan

Tujuan Tugas Akhir ini adalah :

a. tujuan makro adalah untuk memberikan alternatif disain kubah selain beton,
b. tujuan mikro adalah untuk mendisain kubah dengan struktur ruang, menganalisis beban-beban yang bekerja pada kubah dan menghitung gaya batang yang terjadi dengan program aplikasi struktur tiga dimensi.

1.3 Batasan Masalah

Adapun batasan masalah dari Tugas Akhir ini adalah :

a. kubah yang akan didisain memiliki diameter 23 m dan tinggi 8,5 m, dengan tipe kubah Lamella. Ukuran kubah tersebut mengacu pada ukuran kubah beton yang digunakan pada masjid kampus UII di Jalan Kaliurang,
b. perhitungan struktur dilakukan dengan menggunakan program aplikasi struktur tiga dimensi, dan inputnya disesuaikan dengan bentuk struktur sistem pembebanan dan sistem dukungan,
c. beban-beban yang bekerja dihitung berdasarkan Pedoman Perencanaan Pembebanan untuk Rumah dan Gedung tahun 1987, dan penetapan beban yang bekerja disesuaikan dengan posisi joint dan bentuk dari kubah,

d. perhitungan dan pemilihan batang yang digunakan mengikuti ketentuan *American Institute of Steel Construction* (AISC),
e. sambungan antara batang digunakan sambungan sistem Mero atau *ball joint*, sehingga sifat hubungan antara batangnya jepit jepit,
f. faktor biaya pembangunan tidak termasuk dalam perencanan ini,
g. pemilihan profil yang direncanakan menggunakan profil dari tabel *American Institute of Steel Construction* (AISC). Jenis profil yang digunakan adalah pipa dengan Fy = 36 ksi.

1.4 Manfaat

Manfaat yang diharapkan dari tugas akhir ini adalah :

a. dapat memberikan pengetahuan tentang perencanaan bangunan struktur ruang serta faktor-faktor yang mempengaruhi,
b. memberikan pengenalan dan gambaran tentang pemakaian struktur ruang.

1.5 Hipotesis

Hipotesis yang diharapkan dari tugas akhir ini adalah :

a. Dari mekanisme pendistribusian beban maupun tegangan, ukuran batang lapisan atas cenderung lebih kecil daripada batang bawah.
b. Untuk kubah dengan bentang yang relatif kecil, lebih efektif jika menggunakan struktur kubah permukaan satu lapis.

c. Sambungan joint sistem Mero memiliki kelebihan dalam pengerjaan dan kemudahan perhitungan.

d. Program SAP90 dapat digunakan untuk menghitung gaya batang struktur ruang.

1.6 Tinjauan Pustaka

Pada struktur ruang, garis kerja gaya menyebar bercabang-cabang di dalam ruang. Sebagian besar tegangan menjadi seimbang dan membentuk secara nyata suatu medan gaya yang homogen tanpa titik beban khusus, serta kepada struktur memberi daya tahan yang besar terhadap pembebanan luar. Tegangan menyusut, dan bersamaan dengan ini bagian penting dari elemen tarik dan tekan juga menyusut, yang mengakibatkan penghematan bahan bangunan yang tidak sedikit.

Pemakaian baja untuk bahan pembentukan struktur ruang menambah lagi keuntungan seperti dinyatakan di atas, karena logam ini mempunyai daya tahan yang besar terhadap patahan yang disebabkan oleh berbagai beban bergerak mekanis.

Dalam praktek, kekakuan di puncak amat bergantung pada penempatan konstruksi. Puncak itu sama sekali kaku dalam pelaksanaan dilas, dan momen jepit timbul yang menyebab perhitungan menjadi muskil. Untuk mendapatkan kekakuan yang lebih baik tulangan dapat dibentuk dalam satuan rangka ruang, misalnya dalam bentuk elemen berpenampang segi tiga. Selain itu juga jaring segi empat yang terbagi dalam dua segi tiga oleh suatu diagonal menjadikan permukaan kaku dan dapat bertahan terhadap beban tidak tangkup (Z.S.Makowski, 1964).

Analisis rangka ruang secara luas didasarkan pada pengalaman dan penyederhanaan asumsi dari pengetahuan rangka ruang. Untuk beberapa tipe rangka ruang pendekatan tersebut dapat memberikan hasil yang baik, tetapi untuk kasus-kasus umum pendekatan itu tidak dapat digunakan sebagai analisis akhir. Dengan meningkatnya kompleksitas disain dan perkembangan material yang lebih kuat membutuhkan solusi struktur yang lebih tepat. Dengan ketersediaan alat hitung elektronik yang lebih canggih dan perkembangan program komputer standar, dapat diperoleh solusi analisis struktur yang lebih akurat untuk masalah yang lebih kompleks (Boris Bresler, 1968).

BAB II

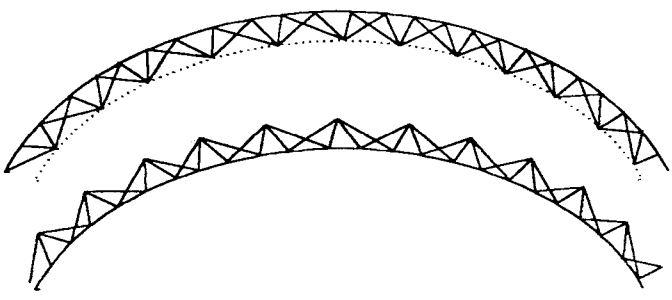
LANDASAN TEORI

2.1 Struktur Ruang Kubah Satu Lapis

Struktur ruang adalah rangka tiga dimensi yang terdiri dari batang-batang yang berhubungan satu sama lain secara kaku sehingga menjadi stabil dan dapat menahan gaya-gaya yang bekerja dari segala arah (Gillespie, 1961).

Struktur ruang kubah satu lapis adalah struktur ruang dimana joint-jointnya terletak pada bidang kubah. Sedangkan struktur ruang kubah dua lapis adalah struktur ruang dimana jointnya terdapat pada dua bidang sepusat.

a. Permukaan satu lapis



b. Permukaan dua lapis

Gambar 2.1 (a) Kubah permukaan satu lapis, (b) Kubah permukaan dua lapis

2.2 **Jenis-Jenis Kubah**

Kubah diklasifikasikan berdasarkan cara perakitan batang-batangnya. Banyak pola perakitan yang digunakan, tetapi secara garis besar dibagi atas :

1. Kubah Schwedler

   Kubah terdiri dari batang-batang meridian yang pada bertemu pada puncak kubah dan ring paralel yang terletak secara horisontal dan memiliki pembagian panjang yang sama. Batang-batang tersebut dijepit oleh batang diagonal. Kubah ini juga dibuat dengan joint yang kaku.

2. Kubah Lamella

   Bagian utama dari kubah ini adalah batang-batang yang membentuk lingkaran paralel yang memiliki panjang yang sama. Lingkaran tersebut kemudian dihubungkan dengan berbagai macam pola penyambungan. Kubah Houston di Amerika Serikat adalah kubah jenis Lamella dengan diameter 200 m.

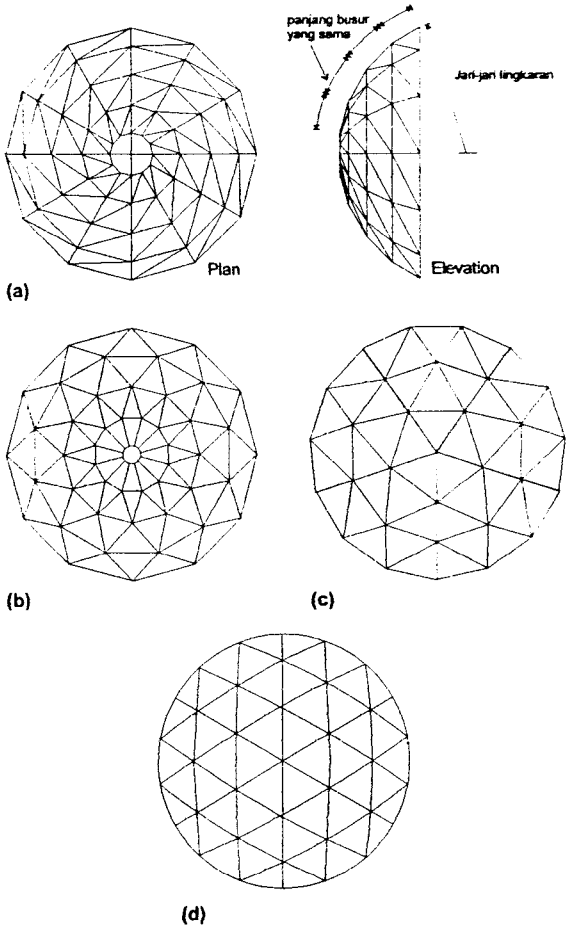
   Penyebaran tegangan pada kubah tipe ini sangat seragam, apapun macam bebannya, beban titik atau beban terbagi merata. Tambahan pula Lamella ini dibebani secara langsung yang sangat mengurangi pemakaian bahan. Perakitan kubah Lamella sangat cepat dan membutuhkan perancah sedikit saja. Harga perkitannya tidak mahal merupak an keuntungan yang besar lainnya dari kubah Lamella.

3. Kubah Grid

   Kubah ini dibentuk oleh busur yang bersilangan dua atau tiga arah. Busur ini biasanya bagian dari suatu lingkaran yang besar.

4. Kubah Geodesik

Sistem konstruksi kubah ini dikembangkan dan dipatenkan oleh Buckminster Fuller. Kubah ini berdasarkan pada isokahedron dengan 20 bidang yang merupakan suatu segitiga sama sisi lengkung. Segitiga-segitiga ini selanjutnya ditutup dengan suatu busur. Kubah ini terbentuk dari bagian-bagian busur tersebut.



Gambar 2.2 (a) Kubah Schwedler (b) Kubah Lamella (c) Kubah Lamella tipe jaring (d) Kubah Geodesik

2.2 **Beban-Beban yang Bekerja**

a. Beban mati, yaitu berat dari semua bagian dari suatu gedung yang bersifat tetap, termasuk segala unsur tambahan, serta peralatan tetap yang merupakan bagian yang tak terpisahkan dari bangunan itu. Beban mati terdiri dari berat penutup, berat struktur, dan berat alat sambung.
b. Beban hidup, adalah semua beban yang terjadi akibat penggunaan atap tersebut.
c. Beban angin, adalah semua beban yang bekerja pada gedung atau bagian gedung yang disebabkan oleh selisih dalam tekanan udara.

Beban gempa dalam disain struktur ruang ini tidak diperhitungkan, karena tugas akhir ini hanya mendisain atap yang merupakan bagian dari suatu bangunan. Sedangkan beban gempa diperhitungkan pada perencanaan balok dan kolom bangunan. Selain itu karena *fiber glass* yang digunakan sebagai penutup atap memiliki berat yang sangat ringan sehingga berat struktur keseluruhan menjadi ringan dan memperkecil pengaruh beban gempa.

2.3 **Gambaran Program SAP90**

Program SAP 90 digunakan untuk mencari gaya-gaya batang dan momen yang terjadi. Pengolahan data untuk program analisis struktur pada dasarnya meliputi : (1) penggambaran struktur geometri, dan (2) mendefinisikan kondisi beban statik dan atau dinamik yang diperlukan untuk analisis. Penggambaran struktur geometri dilakukan dengan memasukan data join dan elemen struktur ke dalam input data. Data join meliputi koordinat join dengan sistem sumbu x, y dan z,

perletakan struktur dan berat join. Sedangkan data elemen meliputi penomoran elemen, jenis material dan beban elemen. Beban struktur diberikan dalam bentuk beban statik dan atau dinamik ke dalam *Loads Data* dan *Response Spectrum Data* serta *Time History Data.*

Untuk memproses data digunakan file SAP90, untuk melihat gambar geometri digunakan file SAPLOT dan gaya-gaya batang beserta momen dapat dilihat melalui file F3F.

2.4 Perhitungan Kekuatan Batang

Perhitungan kekuatan batang pada perencanaan ini menggunakan ketentuan dari AISC. Gaya-gaya yang diperhitungkan adalah gaya-gaya batang yang diperoleh dari perhitungan program SAP90. Gaya batang yang dihasilkan dari program SAP90 adalah gaya aksial, normal, torsi dan momen arah x dan arah y. Rumus yang digunakan adalah persamaan interaksi untuk perencanaan balok-kolom dengan metode elastis yang dikemukakan dalam pasal 1.6.1 AISC manual 1980.

Batang-batang yang mendukung kombinasi tekan dengan lentur harus memenuhi persamaan berikut ini :

Untuk batang tekan :

$$\frac{fa}{Fa} + \frac{C_{mx}\, f_{bx}}{(1 - fa/F'_{ex})\, F_{bx}} + \frac{C_{my}\, f_{by}}{(1 - fa/F'_{ey})\, F_{by}} \leq 1 \qquad (1)$$

$$\frac{fa}{0{,}6.Fy} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1 \qquad \text{(AISC) (2)}$$

Jika fa/Fa ≤ 0,15 digunakan persamaan :

$$\frac{fa}{Fa} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1 \qquad \text{(AISC) (3)}$$

Pada persamaan diatas, indeks x dan y dikombinasikan dengan b, m dan e menunjukan sumbu lentur :

$Fa = \frac{F_y}{FS}\left[1 - \frac{(KL/r)^2}{2C_c^2}\right]$

= tegangan ijin desak aksial pada luas bruto pada kondisi beban kerja

FS = faktor keamanan

$= \frac{5}{3} + \frac{3}{8}\frac{KL/r}{C_c} - \frac{1}{8}\frac{(KL/r)^3}{(C_c)^3}$ bila $KL/r \leq C_c$

$Fa = \frac{12\pi^2 E}{23(KL/r)^2}$ bila $KL/r > C_c$

$C_c = \sqrt{\frac{2\pi^2 E}{Fy}}$

Fb = tegangan ijin akibat lentur, untuk penampang bentuk pipa.

= 0,66 Fy

$F'e = \frac{12.\pi^2.E}{23\,(K.L_b/r_b)^2}$

= tegangan Euler dibagi dengan faktor aman

fa = tegangan akibat beban tekan aksial yang terjadi

fb = tegangan lentur yang terjadi

C_m = koefisien momen, nilainya ditentukan dengan cara berikut :

1. Untuk batang tekan di dalam rangka joint translasi (bergoyang) = 0,85
2. Untuk batang tekan pada rangka yang dikekang

   $C_m = 0{,}6 - 0{,}4.M_1/M_2 \geq 0{,}40$

   Rasio M_1/M_2 positif untuk lengkung dua arah dan negatif untuk lengkung tunggal.

   $|M_1| \leq |M_2|$

Untuk batang tarik :

$$\frac{fa}{Ft} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1 \qquad \text{(AISC) (4)}$$

fa = tegangan akibat beban tekan aksial yang terjadi

Ft = tegangan ijin akibat gaya tarik aksial yang tidak boleh lebih dari 0,6.Fy pada A_g (luasan total) atau 0,5.Fu pada A_{ef} (luas efektif).

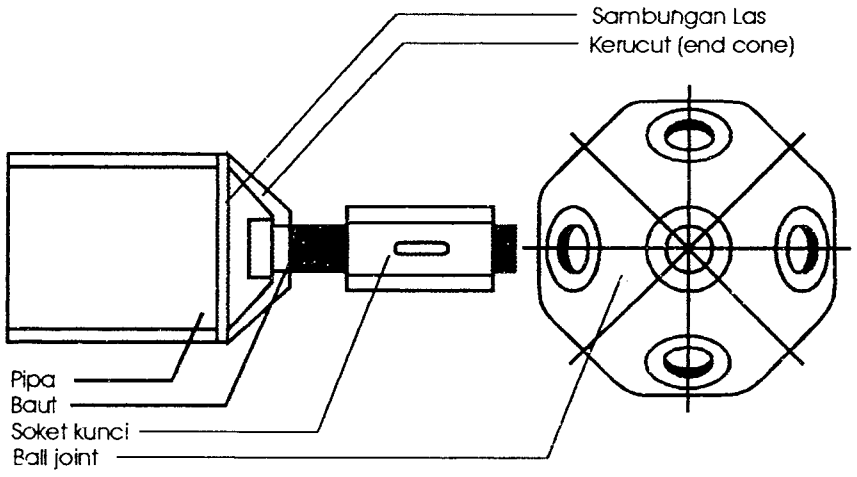
Untuk beban tetap persamaan interaksi harus ≤ 1. Untuk beban tetap + beban sementara persamaan interaksi ≤ 1,25.

2.4 Sistem Penyambungan

Sistem penyambungan yang umum digunakan pada struktur ruang adalah sambungan sistem Mero. Sambungan ini terdiri sebuah bola baja berulir dimana ujung batang rangka ruang disekrup kedalam bola baja tersebut dengan sebuah

konektor ujung yang khusus. Batangnya biasanya berupa pipa (*circular hollow section*). Sebuah titik simpul dapat menerima ujung dari 18 batang tanpa kesukaran.

Sistem Mero sangat luwes dan mengetengahkan prefabrikasi secara maksimum. Pemasangan batang dapat dilaksanakan oleh pekerja bukan ahli tanpa kesukaran apapun, di bawah pengawasan seorang teknisi, sehingga menghemat waktu dan biaya.



Gambar 2.3 Sistem Sambungan Mero (Ball Joint)

Sebagai alat sambung dari sistem Mero ini adalah bola-bola baja. Untuk menghubungkan batang-batang dengan bola baja tersebut , dipakai baut yang mana baut ini menyatu pada kedua ujung tiap batang. Dalam hal ini baut menderita gaya aksial, sehingga dalam perencanaan ukuran baut diperlukan rumus-rumus yang berbeda jika baut direncanakan menderita gaya geser.

Kekuatan baut dan mur terletak pada ulirannya. Dengan demikian tinggi mur dapat dicari dari jumlah uliran yang mampu menahan gaya aksial yang terjadi. Tinggi mur inilah yang merupakan tebal dari bola baja. Tinggi baut = (0,8 – 1) D

Untuk merencanakan ukuran baut dan mur digunakan rumus sebagai berikut :

$$\frac{fa}{Fa} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1 \qquad \text{(AISC) (15)}$$

fa = Tegangan baut akibat gaya aksial

= P/A_{baut}

fb = Tegangan baut akibat momen

= M_{max}/S_{baut}

Fa = Tegangan ijin aksial baut

= 0,33 Fu

Fb = Tegangan ijin lentur baut

= 0,66 Fy

BAB III

ANALISIS DAN PERHITUNGAN BEBAN

3.1 **Data Struktur dan Pembebanan**

a. Penutup yang digunakan diasumsikan dengan menggunakan lapisan *fiberglass* dengan tebal 1 cm dengan berat jenis 1,8 t/m^3.

b. Sebagai asumsi awal dimensi batang lapisan 1 dan 2 digunakan pipa diameter 2,5", untuk lapisan 3 dan 4 digunakan pipa diameter 2", dan untuk batang lapisan 5 dan 6 digunakan pipa diameter 1,5".

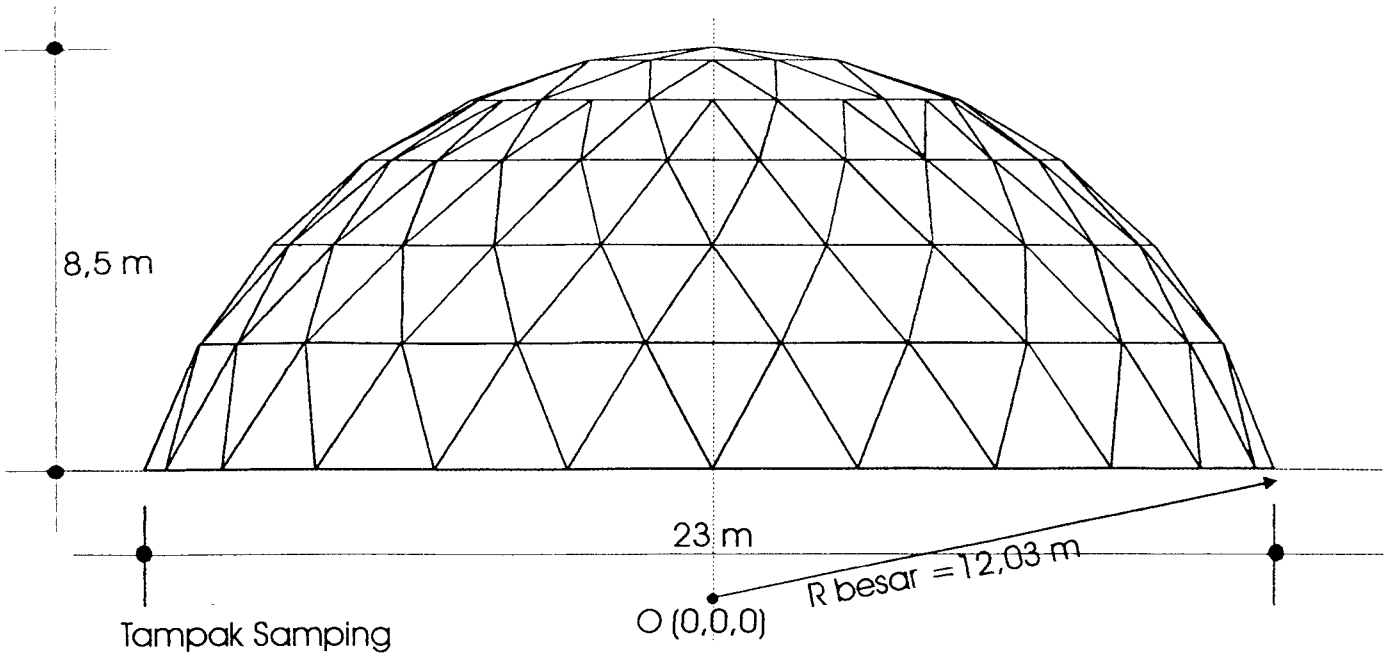
c. Berat alat sambung *(ball joint)* diasumsikan 4 kg dengan diameter 4" dan berat jenis besi = 450 lbs/ft^3 (7208,3026 kg/m^3).

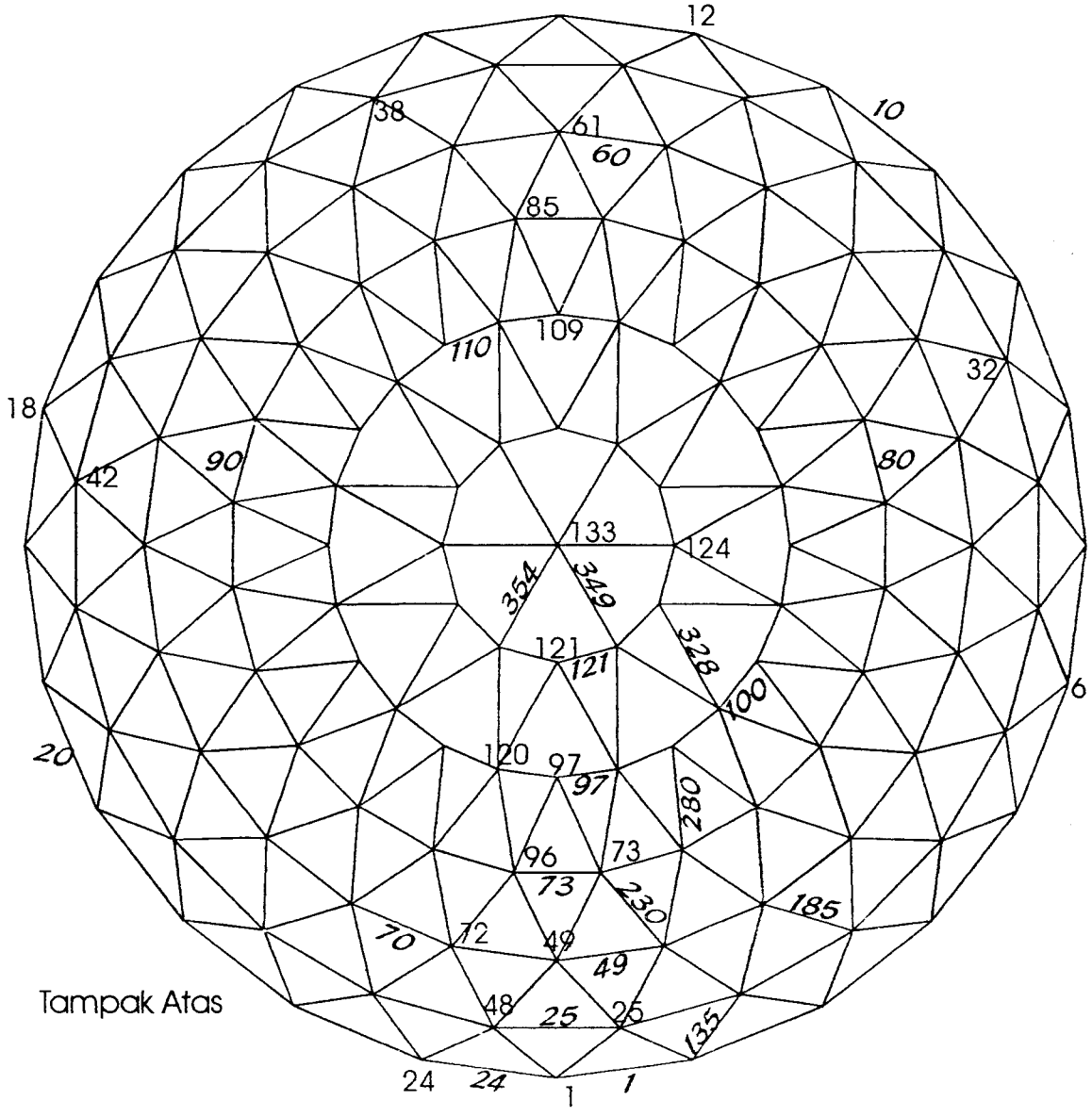
d. Beban hidup diasumsikan sebagai berat dari alat penerangan yang menggantung pada rangka dengan berat 300 kg.

e. Beban angin diasumsikan diperoleh dari angin yang bekerja dengan tekanan maksimum 30 kg/m^2.

3.2 Koordinat Joint-joint

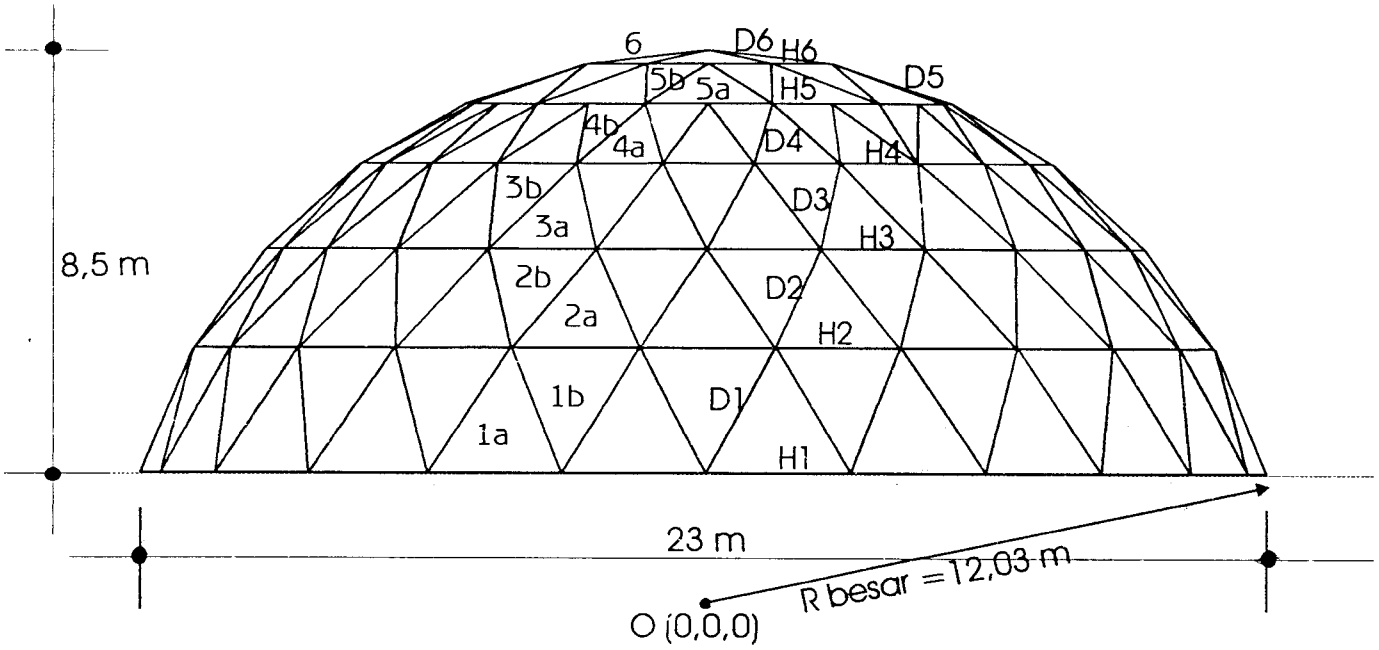
Titik O (0,0,0) terletak pada pusat bola. Seluruh koordinat joint dihitung dari titik O.





Skala : 1 : 150

Gambar 3.1 : Layout Struktur Kubah



Tampak Samping

Tabel 3.1 : Koordinat joint

Joint	x	y	z
1	0	-11,5	3,531
2	2,976	-11,108	3,531
3	5,75	-9,959	3,531
4	8,132	-8,132	3,531
5	9,959	-5,75	3,531
6	11,108	-2,976	3,531
7	11,5	0	3,531
8	11,108	2,976	3,531
9	9,959	5,75	3,531
10	8,132	8,132	3,531
11	5,75	9,959	3,531
12	2,976	11,108	3,531
13	0	11,5	3,531
14	-2,976	11,108	3,531
15	-5,75	9,959	3,531
16	-8,132	8,132	3,531
17	-9,959	5,75	3,531
18	-11,108	2,976	3,531
19	-11,5	0	3,531
20	-11,108	-2,976	3,531
21	-9,959	-5,75	3,531
22	-8,132	-8,132	3,531
23	-5,75	-9,959	3,531
24	-2,976	-11,108	3,531
25	1,37	-10,409	5,874
26	4,018	-9,7	5,874
27	6,391	-8,329	5,874
28	8,329	-6,391	5,874
29	9,7	-4,018	5,874
30	10,409	-1,37	5,874
31	10,409	1,37	5,874
32	9,7	4,018	5,874
33	8,329	6,391	5,874
34	6,391	8,329	5,874
35	4,018	9,7	5,874
36	1,37	10,409	5,874
37	-1,37	10,409	5,874
38	-4,018	9,7	5,874
39	-6,391	8,329	5,874
40	-8,329	6,391	5,874
41	-9,7	4,018	5,874
42	-10,409	1,37	5,874
43	-10,409	-1,37	5,874
44	-9,7	-4,018	5,874
45	-8,329	-6,391	5,874
46	-6,391	-8,329	5,874
47	-4,018	-9,7	5,874
48	-1,37	-10,409	5,874
49	0	-9,027	7,952
50	2,336	-8,719	7,952
51	4,513	-7,818	7,952
52	6,383	-6,383	7,952
53	7,818	-4,514	7,952
54	8,719	-2,336	7,952
55	9,027	0	7,952
56	8,719	2,336	7,952
57	7,818	4,514	7,952
58	6,383	6,383	7,952
59	4,514	7,818	7,952
60	2,336	8,719	7,952
61	0	9,027	7,952
62	-2,336	8,719	7,952
63	-4,513	7,818	7,952
64	-6,383	6,383	7,952
65	-7,818	4,514	7,952
66	-8,719	2,336	7,952
67	-9,027	0	7,952
68	-8,719	-2,336	7,952
69	-7,818	-4,514	7,952
70	-6,383	-6,383	7,952
71	-4,514	-7,818	7,952
72	-2,336	-8,719	7,952
73	0,933	-7,089	9,675
74	2,736	-6,606	9,675
75	4,353	-5,672	9,675
76	5,672	-4,353	9,675
77	6,606	-2,736	9,675
78	7,089	-0,933	9,675
79	7,089	0,933	9,675
80	6,606	2,736	9,675
81	5,672	4,353	9,675
82	4,353	5,672	9,675
83	2,736	6,606	9,675
84	0,933	7,089	9,675
85	-0,933	7,089	9,675

86	-2,736	6,606	9,675
87	-4,353	5,672	9,675
88	-5,672	4,353	9,675
89	-6,606	2,736	9,675
90	-7,089	0,933	9,675
91	-7,089	-0,933	9,675
92	-6,606	-2,736	9,675
93	-5,672	-4,353	9,675
94	-4,353	-5,672	9,675
95	-2,736	-6,606	9,675
96	-0,933	-7,089	9,675
97	0	-4,952	10,963
98	1,282	-4,783	10,963
99	2,476	-4,289	10,963
100	3,502	-3,502	10,963
101	4,289	-2,476	10,963
102	4,783	-1,282	10,963
103	4,952	0	10,963
104	4,783	1,282	10,963
105	4,289	2,476	10,963
106	3,502	3,502	10,963
107	2,476	4,289	10,963
108	1,282	4,783	10,963
109	0	4,952	10,963
110	-1,282	4,783	10,963

111	-2,476	4,289	10,963
112	-3,502	3,502	10,963
113	-4,289	2,476	10,963
114	-4,783	1,282	10,963
115	-4,952	0	10,963
116	-4,783	-1,282	10,963
117	-4,289	-2,476	10,963
118	-3,502	-3,502	10,963
119	-2,476	-4,289	10,963
120	-1,282	-4,783	10,963
121	0	-2,533	11,76
122	1,267	-2,194	11,76
123	2,194	-1,267	11,76
124	2,533	0	11,76
125	2,194	1,266	11,76
126	1,267	2,194	11,76
127	0	2,533	11,76
128	-1,267	2,194	11,76
129	-2,194	1,267	11,76
130	-2,533	0	11,76
131	-2,194	-1,267	11,76
132	-1,267	-2,194	11,76
133	0	0	12,03

Luas bidang segitiga dihitung berdasarkan panjang batang-batang yang membentuknya.

Tabel 3.2 : Panjang batang

Batang	Panjang (m)
1 - 24	3,002
25 - 48	2,741
49 - 72	2,356
73 - 96	1,867
97 - 120	1,293
121 - 132	1,312
133 - 180	2,925
181 - 228	2,847
229 - 276	2,756

277 -324	2,664
325 - 348	2,709
349 - 354	2,548

Tabel 3.3 : Luas bidang segitiga

Segitiga	Luas (m^2)	Luas Total (m^2)
1a	3,769	90,456
1b	3,543	85,032
2a	3,419	82,056
2b	3,053	73,272
3a	2,936	70,464
3b	2,421	58,104
4a	2,329	55,896
4b	1,671	40,104
5a	3,265	39,180
5b	1,723	20,676
6	3,228	19,368

3.2 Perhitungan Beban Mati

Beban-beban yang tergabung dalam beban mati adalah berat penutup, profil dan alat sambung.

1. Berat penutup

   Berat penutup dihitung berdasarkan luas bidang-bidang segitiga yang menyusun kubah, sehingga setiap joint menerima sepertiga berat luasan segitiga tersebut. Luasan penutup yang lengkung dan terletak diatas rangka kubah ini diasumsikan sama dengan luas segitiga yang membentuk bidang kubah tersebut.

2. Berat profil

Berat profil termasuk berat sendiri yang secara otomatis akan dihitung oleh program SAP90.

3. Berat alat sambung

Berat alat sambung terdiri atas ball joint + endcone + bolt = 8 kg bekerja pada tiap-tiap joint.

Tabel 3.4 : Perhitungan beban mati

Joint	Luas yang ditahan (m^2)	Berat akibat penutup (kg)	Berat alat sambung (kg)	berat total beban mati (kg)
1-24	3,694	66,492	8	74,492
25 -48	6,915	124,470	8	132,470
49 - 72	5,939	106,902	8	114,902
73 - 96	4,702	84,636	8	92,636
97	2,979	53,622	8	61,622
98	3,553	63,954	8	71,954
99	2,979	53,622	8	61,622
100	3,553	63,954	8	71,954
101	2,979	53,622	8	61,622
102	3,553	63,954	8	71,954
103	2,979	53,622	8	61,622
104	3,553	63,954	8	71,954
105	2,979	53,622	8	61,622
106	3,553	63,954	8	71,954
107	2,979	53,622	8	61,622
108	3,553	63,954	8	71,954
109	2,979	53,622	8	61,622
110	3,553	63,954	8	71,954
111	2,979	53,622	8	61,622
112	3,553	63,954	8	71,954
113	2,979	53,622	8	61,622
114	3,553	63,954	8	71,954
115	2,979	53,622	8	61,622
116	3,553	63,954	8	71,954
117	2,979	53,622	8	61,622
118	3,553	63,954	8	71,954
119	2,979	53,622	8	61,622
120	3,553	63,954	8	71,954
121 - 132	3,313	59,634	8	67,634
133	6,456	116,208	8	124,208
			Total	2209,254

3.3 Perhitungan Beban Hidup

Beban hidup yang bekerja terdiri dari beban beban berguna yang berupa berat alat penerangan seberat 300 kg dan bekerja pada titik puncak.

3.4 Beban angin

Struktur kubah didisain juga untuk menahan momen guling akibat gaya angin. Pada kenyataannya angin dapat terjadi dari arah mana saja. Gaya angin ini akan menghasilkan gaya angin tekan pada permukaan struktur yang terkena angin dan gaya angin isapan pada sisi sebaliknya. Gaya angin didistribusikan untuk setiap ketinggian struktur, selanjutnya didistribusikan lagi pada arah x, y dan z.

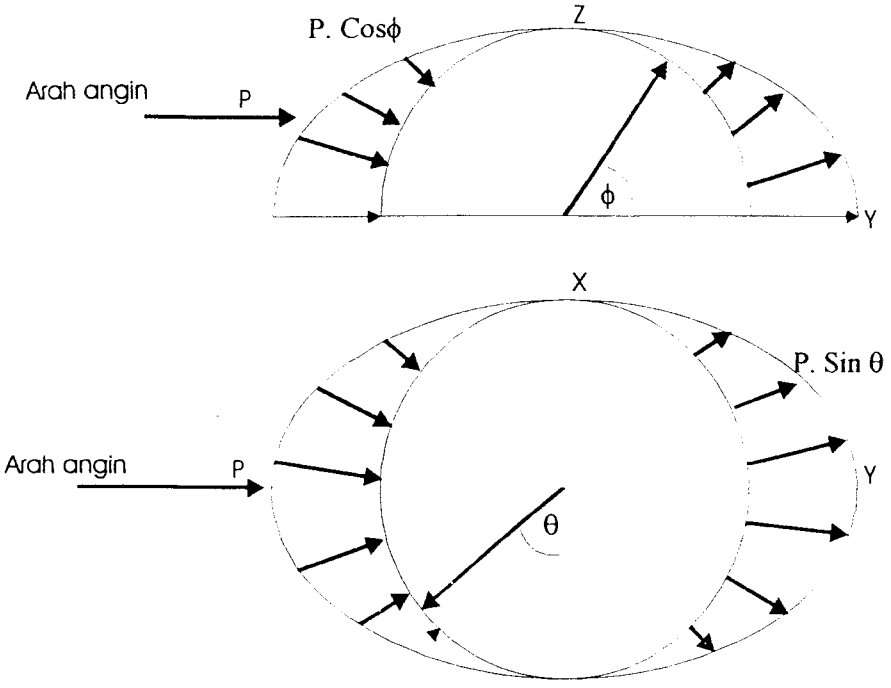
Berdasarkan Peraturan Pembebanan 1987 tekanan angin harus diambil minimum 25 kg/m^2 maka pada struktur kubah ini beban angin diambil sebesar 30 kg/m^2. Perhitungan beban angin dilakukan dengan cara mengalikan tekanan angin dengan luasan yang dikenai oleh angin dan menjadi beban titik (P). Gaya P ini kemudian didistribusikan pada tiap joint yang mengenai luasan itu dengan menggunakan rumus :

$$Pi = P.\text{Cos}\ \phi.\ \text{Sin}\ \theta$$

Dimana :

ϕ = sudut antara sumbu y dengan garis hubung antara joint dan titik pusat kubah.

θ = sudut antara sumbu x dengan garis hubung antara joint dan titik pusat kubah.



Gambar 3.3.1 Pemodelan beban angin

Tabel 3.5 : Beban angin

Joint	Luas yang ditahan (m^2)	θ	ϕ	sin θ	cos ϕ	P
1	3,694	360	17,07	0,000	0,956	0,000
2	3,694	345	17,07	-0,259	0,956	-27,416
3	3,694	330	17,07	-0,500	0,956	-52,964
4	3,694	315	17,07	-0,707	0,956	-74,903
5	3,694	300	17,07	-0,866	0,956	-91,737
6	3,694	285	17,07	-0,966	0,956	-102,319
7	3,694	270	17,07	-1,000	0,956	-105,928
8	3,694	255	17,07	-0,966	0,956	-102,319
9	3,694	240	17,07	-0,866	0,956	-91,737
10	3,694	225	17,07	-0,707	0,956	-74,903
11	3,694	210	17,07	-0,500	0,956	-52,964
12	3,694	195	17,07	-0,259	0,956	-27,416
13	3,694	180	17,07	0,000	0,956	0,000
14	3,694	165	17,07	0,259	0,956	27,416
15	3,694	150	17,07	0,500	0,956	52,964
16	3,694	135	17,07	0,707	0,956	74,903
17	3,694	120	17,07	0,866	0,956	91,737

18	3,694	105	17,07	0,966	0,956	102,319
19	3,694	90	17,07	1,000	0,956	105,928
20	3,694	75	17,07	0,966	0,956	102,319
21	3,694	60	17,07	0,866	0,956	91,737
22	3,694	45	17,07	0,707	0,956	74,903
23	3,694	30	17,07	0,500	0,956	52,964
24	3,694	15	17,07	0,259	0,956	27,416
25	6,915	352,5	29,225	-0,131	0,873	-23,632
26	6,915	337,5	29,225	-0,383	0,873	-69,286
27	6,915	322,5	29,225	-0,609	0,873	-110,218
28	6,915	307,5	29,225	-0,793	0,873	-143,638
29	6,915	292,5	29,225	-0,924	0,873	-167,270
30	6,915	277,5	29,225	-0,991	0,873	-179,503
31	6,915	262,5	29,225	-0,991	0,873	-179,503
32	6,915	247,5	29,225	-0,924	0,873	-167,270
33	6,915	232,5	29,225	-0,793	0,873	-143,638
34	6,915	217,5	29,225	-0,609	0,873	-110,218
35	6,915	202,5	29,225	-0,383	0,873	-69,286
36	6,915	187,5	29,225	-0,131	0,873	-23,632
37	6,915	172,5	29,225	0,131	0,873	23,632
38	6,915	157,5	29,225	0,383	0,873	69,286
39	6,915	142,5	29,225	0,609	0,873	110,218
40	6,915	127,5	29,225	0,793	0,873	143,638
41	6,915	112,5	29,225	0,924	0,873	167,270
42	6,915	97,5	29,225	0,991	0,873	179,503
43	6,915	82,5	29,225	0,991	0,873	179,503
44	6,915	67,5	29,225	0,924	0,873	167,270
45	6,915	52,5	29,225	0,793	0,873	143,638
46	6,915	37,5	29,225	0,609	0,873	110,218
47	6,915	22,5	29,225	0,383	0,873	69,286
48	6,915	7,5	29,225	0,131	0,873	23,632
49	5,939	360	41,38	0,000	0,750	0,000
50	5,939	345	41,38	-0,259	0,750	-34,602
51	5,939	330	41,38	-0,500	0,750	-66,846
52	5,939	315	41,38	-0,707	0,750	-94,535
53	5,939	300	41,38	-0,866	0,750	-115,781
54	5,939	285	41,38	-0,966	0,750	-129,137
55	5,939	270	41,38	-1,000	0,750	-133,692
56	5,939	255	41,38	-0,966	0,750	-129,137
57	5,939	240	41,38	-0,866	0,750	-115,781
58	5,939	225	41,38	-0,707	0,750	-94,535
59	5,939	210	41,38	-0,500	0,750	-66,846

60	5,939	195	41,38	-0,259	0,750	-34,602
61	5,939	180	41,38	0,000	0,750	0,000
62	5,939	165	41,38	0,259	0,750	34,602
63	5,939	150	41,38	0,500	0,750	66,846
64	5,939	135	41,38	0,707	0,750	94,535
65	5,939	120	41,38	0,866	0,750	115,781
66	5,939	105	41,38	0,966	0,750	129,137
67	5,939	90	41,38	1,000	0,750	133,692
68	5,939	75	41,38	0,966	0,750	129,137
69	5,939	60	41,38	0,866	0,750	115,781
70	5,939	45	41,38	0,707	0,750	94,535
71	5,939	30	41,38	0,500	0,750	66,846
72	5,939	15	41,38	0,259	0,750	34,602
73	4,702	352,5	53,535	-0,131	0,594	-10,943
74	4,702	337,5	53,535	-0,383	0,594	-32,083
75	4,702	322,5	53,535	-0,609	0,594	-51,036
76	4,702	307,5	53,535	-0,793	0,594	-66,512
77	4,702	292,5	53,535	-0,924	0,594	-77,455
78	4,702	277,5	53,535	-0,991	0,594	-83,119
79	4,702	262,5	53,535	-0,991	0,594	-83,119
80	4,702	247,5	53,535	-0,924	0,594	-77,455
81	4,702	232,5	53,535	-0,793	0,594	-66,512
82	4,702	217,5	53,535	-0,609	0,594	-51,036
83	4,702	202,5	53,535	-0,383	0,594	-32,083
84	4,702	187,5	53,535	-0,131	0,594	-10,943
85	4,702	172,5	53,535	0,131	0,594	10,943
86	4,702	157,5	53,535	0,383	0,594	32,083
87	4,702	142,5	53,535	0,609	0,594	51,036
88	4,702	127,5	53,535	0,793	0,594	66,512
89	4,702	112,5	53,535	0,924	0,594	77,455
90	4,702	97,5	53,535	0,991	0,594	83,119
91	4,702	82,5	53,535	0,991	0,594	83,119
92	4,702	67,5	53,535	0,924	0,594	77,455
93	4,702	52,5	53,535	0,793	0,594	66,512
94	4,702	37,5	53,535	0,609	0,594	51,036
95	4,702	22,5	53,535	0,383	0,594	32,083
96	4,702	7,5	53,535	0,131	0,594	10,943
97	2,979	360	65,69	0,000	0,412	0,000
98	3,553	345	65,69	-0,259	0,412	-11,357
99	2,979	330	65,69	-0,500	0,412	-18,396
100	3,553	315	65,69	-0,707	0,412	-31,028
101	2,979	300	65,69	-0,866	0,412	-31,862

102	3,553	285	65,69	-0,966	0,412	-42,385
103	2,979	270	65,69	-1,000	0,412	-36,791
104	3,553	255	65,69	-0,966	0,412	-42,385
105	2,979	240	65,69	-0,866	0,412	-31,862
106	3,553	225	65,69	-0,707	0,412	-31,028
107	2,979	210	65,69	-0,500	0,412	-18,396
108	3,553	195	65,69	-0,259	0,412	-11,357
109	2,979	180	65,69	0,000	0,412	0,000
110	3,553	165	65,69	0,259	0,412	11,357
111	2,979	150	65,69	0,500	0,412	18,396
112	3,553	135	65,69	0,707	0,412	31,028
113	2,979	120	65,69	0,866	0,412	31,862
114	3,553	105	65,69	0,966	0,412	42,385
115	2,979	90	65,69	1,000	0,412	36,791
116	3,553	75	65,69	0,966	0,412	42,385
117	2,979	60	65,69	0,866	0,412	31,862
118	3,553	45	65,69	0,707	0,412	31,028
119	2,979	30	65,69	0,500	0,412	18,396
120	3,553	15	65,69	0,259	0,412	11,357
121	3,313	360	77,845	0,000	0,211	0,000
122	3,313	330	77,845	-0,500	0,211	-10,464
123	3,313	300	77,845	-0,866	0,211	-18,124
124	3,313	270	77,845	-1,000	0,211	-20,927
125	3,313	240	77,845	-0,866	0,211	-18,124
126	3,313	210	77,845	-0,500	0,211	-10,464
127	3,313	180	77,845	0,000	0,211	0,000
128	3,313	150	77,845	0,500	0,211	10,464
129	3,313	120	77,845	0,866	0,211	18,124
130	3,313	90	77,845	1,000	0,211	20,927
131	3,313	60	77,845	0,866	0,211	18,124
132	3,313	30	77,845	0,500	0,211	10,464
133	6,456	0	90	0,000	0,000	0,000

Tabel 3.6 : Tabel distribusi beban angin

Joint	P	x	y	z
1	0,000	0,000	0,000	0,000
2	-27,416	6,783	25,315	8,048
3	-52,964	25,315	43,848	15,547
4	-74,903	50,631	50,631	21,987

5	-91,737	75,946	43,848	26,928
6	-102,319	94,479	25,315	30,035
7	-105,928	101,262	0,000	31,094
8	-102,319	94,479	-25,315	30,035
9	-91,737	75,946	-43,848	26,928
10	-74,903	50,631	-50,631	21,987
11	-52,964	25,315	-43,848	15,547
12	-27,416	6,783	-25,315	8,048
13	0,000	0,000	0,000	0,000
14	27,416	6,783	25,315	-8,048
15	52,964	25,315	43,848	-15,547
16	74,903	50,631	50,631	-21,987
17	91,737	75,946	43,848	-26,928
18	102,319	94,479	25,315	-30,035
19	105,928	101,262	0,000	-31,094
20	102,319	94,479	-25,315	-30,035
21	91,737	75,946	-43,848	-26,928
22	74,903	50,631	-50,631	-21,987
23	52,964	25,315	-43,848	-15,547
24	27,416	6,783	-25,315	-8,048
25	-23,632	2,692	20,447	11,538
26	-69,286	23,139	55,864	33,828
27	-110,218	58,555	76,311	53,813
28	-143,638	99,450	76,311	70,130
29	-167,270	134,867	55,864	81,668
30	-179,503	155,314	20,447	87,641
31	-179,503	155,314	-20,447	87,641
32	-167,270	134,867	-55,864	81,668
33	-143,638	99,450	-76,311	70,130
34	-110,218	58,555	-76,311	53,813
35	-69,286	23,139	-55,864	33,828
36	-23,632	2,692	-20,447	11,538
37	23,632	2,692	20,447	-11,538
38	69,286	23,139	55,864	-33,828
39	110,218	58,555	76,311	-53,813
40	143,638	99,450	76,311	-70,130
41	167,270	134,867	55,864	-81,668
42	179,503	155,314	20,447	-87,641
43	179,503	155,314	-20,447	-87,641
44	167,270	134,867	-55,864	-81,668
45	143,638	99,450	-76,311	-70,130
46	110,218	58,555	-76,311	-53,813

47	69,286	23,139	-55,864	-33,828
48	23,632	2,692	-20,447	-11,538
49	0,000	0,000	0,000	0,000
50	-34,602	6,720	25,079	22,874
51	-66,846	25,079	43,438	44,189
52	-94,535	50,157	50,157	62,492
53	-115,781	75,236	43,438	76,537
54	-129,137	93,595	25,079	85,366
55	-133,692	100,315	0,000	88,377
56	-129,137	93,595	-25,079	85,366
57	-115,781	75,236	-43,438	76,537
58	-94,535	50,157	-50,157	62,492
59	-66,846	25,079	-43,438	44,189
60	-34,602	6,720	-25,079	22,874
61	0,000	0,000	0,000	0,000
62	34,602	6,720	25,079	-22,874
63	66,846	25,079	43,438	-44,189
64	94,535	50,157	50,157	-62,492
65	115,781	75,236	43,438	-76,537
66	129,137	93,595	25,079	-85,366
67	133,692	100,315	0,000	-88,377
68	129,137	93,595	-25,079	-85,366
69	115,781	75,236	-43,438	-76,537
70	94,535	50,157	-50,157	-62,492
71	66,846	25,079	-43,438	-44,189
72	34,602	6,720	-25,079	-22,874
73	-10,943	0,849	6,448	8,800
74	-32,083	7,297	17,616	25,802
75	-51,036	18,465	24,064	41,044
76	-66,512	31,361	24,064	53,490
77	-77,455	42,530	17,616	62,291
78	-83,119	48,978	6,448	66,846
79	-83,119	48,978	-6,448	66,846
80	-77,455	42,530	-17,616	62,291
81	-66,512	31,361	-24,064	53,490
82	-51,036	18,465	-24,064	41,044
83	-32,083	7,297	-17,616	25,802
84	-10,943	0,849	-6,448	8,800
85	10,943	0,849	6,448	-8,800
86	32,083	7,297	17,616	-25,802
87	51,036	18,465	24,064	-41,044
88	66,512	31,361	24,064	-53,490

89	77,455	42,530	17,616	-62,291
90	83,119	48,978	6,448	-66,846
91	83,119	48,978	-6,448	-66,846
92	77,455	42,530	-17,616	-62,291
93	66,512	31,361	-24,064	-53,490
94	51,036	18,465	-24,064	-41,044
95	32,083	7,297	-17,616	-25,802
96	10,943	0,849	-6,448	-8,800
97	0,000	0,000	0,000	0,000
98	-11,357	1,210	4,516	10,350
99	-18,396	3,786	6,558	16,765
100	-31,028	9,032	9,032	28,277
101	-31,862	11,359	6,558	29,037
102	-42,385	16,854	4,516	38,627
103	-36,791	15,146	0,000	33,529
104	-42,385	16,854	-4,516	38,627
105	-31,862	11,359	-6,558	29,037
106	-31,028	9,032	-9,032	28,277
107	-18,396	3,786	-6,558	16,765
108	-11,357	1,210	-4,516	10,350
109	0,000	0,000	0,000	0,000
110	11,357	1,210	4,516	-10,350
111	18,396	3,786	6,558	-16,765
112	31,028	9,032	9,032	-28,277
113	31,862	11,359	6,558	-29,037
114	42,385	16,854	4,516	-38,627
115	36,791	15,146	0,000	-33,529
116	42,385	16,854	-4,516	-38,627
117	31,862	11,359	-6,558	-29,037
118	31,028	9,032	-9,032	-28,277
119	18,396	3,786	-6,558	-16,765
120	11,357	1,210	-4,516	-10,350
121	0,000	0,000	0,000	0,000
122	-10,464	1,102	1,908	10,229
123	-18,124	3,305	1,908	17,717
124	-20,927	4,406	0,000	20,458
125	-18,124	3,305	-1,908	17,717
126	-10,464	1,102	-1,908	10,229
127	0,000	0,000	0,000	0,000
128	10,464	1,102	1,908	-10,229
129	18,124	3,305	1,908	-17,717
130	20,927	4,406	0,000	-20,458

131	18,124	3,305	-1,908	-17,717
132	10,464	1,102	-1,908	-10,229
133	0,000	0,000	0,000	0,000

3.5 Pengecekan Elemen Struktur

Gaya batang diambil dari gaya batang akibat beban tetap, bila gaya batang beban tetap + beban sementara ≥ 125 % beban tetap, maka yang diambil adalah gaya batang akibat beban tetap + beban sementara, dan angka keamanan ditingkatkan menjadi 1,25.

Hasil pengecekan elemen struktur dengan rumus-rumus AISC dapat dilihat pada tabel 3.7 dan tabel 3.8.

Keterangan :

L = panjang batang

P max = gaya aksial maksimum yang terjadi pada batang, dengan tanda positif (+) untuk batang tarik dan negatif (-) untuk batang desak, diambil dari beban tetap atau beban sementara bila > 1,25 beban tetap

Mx max = momen maksimum arah x

My max = momen maksimum arah y

fa = tegangan akibat beban aksial yang terjadi

Fa = tegangan ijin desak aksial

F'ex = tegangan Euler dibagi dengan faktor aman

Fbx = tegangan lentur arah x

Fby = tegangan lentur arah y

BT = beban tetap

= beban mati + beban hidup

BS = beban sementara

= beban mati + beban hidup + beban angin

Tabel 3.7 : Perhitungan Gaya Batang

Batang	L (m)	P max (kips)		P max	Mx max	My max	Profil	fa	Fa	fbx	fby	Persamaan Interaksi		Ket.
		BT	BT+BS	(kips)	(kips.in)	(kips.in)	(in)	(ksi)	(ksi)	(ksi)	(ksi)	1	2	
25	2.741	0.65	-0.17	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
26	2.741	-0.95	2.49	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
27	2.741	0.65	-0.41	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
28	2.741	2.25	2.77	2.250	0	0	1.5	2.816	5.063	0.000	0.000	0.130	-	Aman
29	2.741	0.65	2.84	2.840	0	0	1.5	3.554	5.063	0.000	0.000	0.165	-	Aman
30	2.741	-0.95	1.82	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
31	2.741	0.65	2.46	2.460	0	0	1.5	3.079	5.063	0.000	0.000	0.143	-	Aman
32	2.741	2.25	2.33	2.250	0	0	1.5	2.816	5.063	0.000	0.000	0.130	-	Aman
33	2.741	0.65	-0.38	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
34	2.741	-0.95	1.62	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
35	2.741	0.65	1.21	1.210	0	0	1.5	1.514	5.063	0.000	0.000	0.070	-	Aman
36	2.741	2.25	3.08	3.080	0	0	1.5	3.855	5.063	0.000	0.000	0.178	-	Aman
37	2.741	0.65	0.09	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
38	2.741	-0.95	2.9	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
39	2.741	0.65	1.06	1.060	0	0	1.5	1.327	5.063	0.000	0.000	0.061	-	Aman
40	2.741	2.25	1.54	2.250	0	0	1.5	2.816	5.063	0.000	0.000	0.130	-	Aman
41	2.741	0.65	0.08	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
42	2.741	-0.95	2.24	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
43	2.741	0.65	1.21	1.210	0	0	1.5	1.514	5.063	0.000	0.000	0.070	-	Aman
44	2.741	2.25	0.53	2.250	0	0	1.5	2.816	5.063	0.000	0.000	0.130	-	Aman
45	2.741	0.65	-0.33	0.650	0	0	1.5	0.814	5.063	0.000	0.000	0.038	-	Aman
46	2.741	-0.95	1.01	-0.950	0	0	1.5	1.189	5.063	0.000	0.000	0.235	0.055	Aman
47	2.741	0.65	1.14	1.140	0	0	1.5	1.427	5.063	0.000	0.000	0.066	-	Aman
48	2.741	2.25	2.42	2.250	0	0	1.5	2.816	5.063	0.000	0.000	0.130	-	Aman
49	2.356	0.3	0.13	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
50	2.356	-0.29	-0.76	-0.760	0	0	1	1.538	3.129	0.000	0.000	0.492	0.071	Aman
51	2.356	-0.29	-0.7	-0.700	0	0	1	1.417	3.129	0.000	0.000	0.453	0.066	Aman
52	2.356	0.3	0.47	0.470	0	0	1	0.951	3.129	0.000	0.000	0.044	-	Aman
53	2.356	0.3	1.31	1.310	0	0	1	2.652	3.129	0.000	0.000	0.123	-	Aman
54	2.356	-0.29	1.28	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
55	2.356	-0.29	1.18	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
56	2.356	0.3	1.12	1.120	0	0	1	2.267	3.129	0.000	0.000	0.105	-	Aman
57	2.356	0.3	0.43	0.430	0	0	1	0.870	3.129	0.000	0.000	0.040	-	Aman
58	2.356	-0.29	-0.39	-0.390	0	0	1	0.789	3.129	0.000	0.000	0.252	0.037	Aman
59	2.356	-0.29	-0.17	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman

60	2.356	0.3	0.55	0.550	0	0	1	1.113	3.129	0.000	0.000	0.052	-	Aman
61	2.356	0.3	0.27	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
62	2.356	-0.29	1.06	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
63	2.356	-0.29	1.47	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
64	2.356	0.3	-0.72	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
65	2.356	0.3	-0.51	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
66	2.356	-0.29	1.22	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
67	2.356	-0.29	1.51	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
68	2.356	0.3	1	1.000	0	0	1	2.024	3.129	0.000	0.000	0.094	-	Aman
69	2.356	0.3	-0.73	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
70	2.356	-0.29	-0.94	-0.940	0	0	1	1.903	3.129	0.000	0.000	0.608	0.088	Aman
71	2.356	-0.29	-0.36	-0.290	0	0	1	0.587	3.129	0.000	0.000	0.188	0.027	Aman
72	2.356	0.3	0.34	0.300	0	0	1	0.607	3.129	0.000	0.000	0.028	-	Aman
73	1.867	-0.07	-0.14	-0.140	-0.01	0.01	1	0.283	4.983	-0.075	0.075	0.057	-	Aman
74	1.867	-0.27	-0.25	-0.270	0.02	-0.01	1	0.547	4.983	0.150	-0.075	0.113	-	Aman
75	1.867	-0.07	0.16	-0.070	0.01	0.01	1	0.142	4.983	0.075	0.075	0.035	-	Aman
76	1.867	-0.07	0.51	-0.070	0.01	-0.01	1	0.142	4.983	0.075	-0.075	0.028	-	Aman
77	1.867	-0.07	0.81	-0.070	-0.01	0.01	1	0.142	4.983	-0.075	0.075	0.028	-	Aman
78	1.867	-0.27	0.72	-0.270	0.02	-0.01	1	0.547	4.983	0.150	-0.075	0.113	-	Aman
79	1.867	-0.07	0.75	-0.070	0	0.01	1	0.142	4.983	0.000	0.075	0.032	-	Aman
80	1.867	-0.07	0.48	-0.070	0.01	-0.01	1	0.142	4.983	0.075	-0.075	0.028	-	Aman
81	1.867	-0.07	0.24	-0.070	-0.01	0.01	1	0.142	4.983	-0.075	0.075	0.028	-	Aman
82	1.867	-0.27	-0.11	-0.270	0.02	-0.01	1	0.547	4.983	0.150	-0.075	0.113	-	Aman
83	1.867	-0.07	-0.22	-0.220	0.01	0.01	1	0.445	4.983	0.075	0.075	0.096	-	Aman
84	1.867	-0.07	1.02	-0.070	0.01	-0.01	1	0.142	4.983	0.075	-0.075	0.028	-	Aman
85	1.867	-0.07	-0.05	-0.070	-0.01	0.01	1	0.142	4.983	-0.075	0.075	0.028	-	Aman
86	1.867	-0.27	-0.81	-0.810	0.02	-0.01	1	1.640	4.983	0.150	-0.075	0.333	0.079	Aman
87	1.867	-0.07	-0.82	-0.820	0.01	0.01	1	1.660	4.983	0.075	0.075	0.341	0.083	Aman
88	1.867	-0.07	-0.83	-0.830	0.01	-0.01	1	1.680	4.983	0.075	-0.075	0.337	0.078	Aman
89	1.867	-0.07	-0.84	-0.840	-0.01	0.01	1	1.700	4.983	-0.075	0.075	0.341	0.079	Aman
90	1.867	-0.27	1.13	-0.270	0.02	-0.01	1	0.547	4.983	0.150	-0.075	0.113	-	Aman
91	1.867	-0.07	-0.96	-0.960	0.01	0.01	1	1.943	4.983	0.075	0.075	0.399	0.096	Aman
92	1.867	-0.07	-0.82	-0.820	0.01	-0.01	1	1.660	4.983	0.075	-0.075	0.333	0.077	Aman
93	1.867	-0.07	-0.39	-0.390	-0.01	0.01	1	0.789	4.983	-0.075	0.075	0.158	0.037	Aman
94	1.867	-0.27	-0.3	-0.270	0.02	-0.01	1	0.547	4.983	0.150	-0.075	0.113	-	Aman
95	1.867	-0.07	-0.08	-0.070	0.01	0.01	1	0.142	4.983	0.075	0.075	0.035	-	Aman
96	1.867	-0.07	-0.13	-0.130	0.01	-0.01	1	0.263	4.983	0.075	-0.075	0.053	-	Aman
97	1.293	-0.37	-0.31	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
98	1.293	-0.21	-0.08	-0.210	0.93	0.55	1	0.425	10.299	6.992	4.135	0.510	-	Aman

99	1.293	-0.21	0.07	-0.210	0.93	0.55	1	0.425	10.299	6.992	4.135	0.510	-	Aman
100	1.293	-0.37	0.01	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
101	1.293	-0.37	0.15	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
102	1.293	-0.21	0.38	-0.210	0.93	0.55	1	0.425	10.299	6.992	4.135	0.510	-	Aman
103	1.293	-0.21	0.37	-0.210	0.93	0.55	1	0.425	10.299	6.992	4.135	0.510	-	Aman
104	1.293	-0.37	0.15	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
105	1.293	-0.37	0.02	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
106	1.293	-0.21	0.1	-0.210	0.94	0.55	1	0.425	10.299	7.068	4.135	0.513	-	Aman
107	1.293	-0.21	-0.11	-0.210	0.94	0.55	1	0.425	10.299	7.068	4.135	0.513	-	Aman
108	1.293	-0.37	-0.41	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
109	1.293	-0.37	-0.38	-0.370	0.68	0.42	1	0.749	10.299	5.113	3.158	0.421	-	Aman
110	1.293	-0.21	-0.37	-0.370	0.96	0.55	1	0.749	10.299	7.218	4.135	0.551	-	Aman
111	1.293	-0.21	-0.61	-0.610	0.96	0.56	1	1.235	10.299	7.218	4.211	0.601	-	Aman
112	1.293	-0.37	-0.86	-0.860	0.68	0.42	1	1.741	10.299	5.113	3.158	0.524	0.429	Aman
113	1.293	-0.37	-0.93	-0.930	0.68	0.42	1	1.883	10.299	5.113	3.158	0.544	0.435	Aman
114	1.293	-0.21	-0.79	-0.790	0.95	0.55	1	1.599	10.299	7.143	4.135	0.632	0.549	Aman
115	1.293	-0.21	-0.8	-0.800	0.95	0.56	1	1.619	10.299	7.143	4.211	0.638	0.553	Aman
116	1.293	-0.37	-0.93	-0.930	0.7	0.43	1	1.883	10.299	5.263	3.233	0.554	0.445	Aman
117	1.293	-0.37	-0.82	-0.820	0.7	0.42	1	1.660	10.299	5.263	3.158	0.520	0.431	Aman
118	1.293	-0.21	-0.65	-0.650	0.93	0.55	1	1.316	10.299	6.992	4.135	0.596	-	Aman
119	1.293	-0.21	-0.36	-0.360	0.93	0.55	1	0.729	10.299	6.992	4.135	0.539	-	Aman
120	1.293	-0.37	-0.47	-0.470	0.68	0.42	1	0.951	10.299	5.113	3.158	0.440	-	Aman
121	1.312	0.09	0.16	0.160	1.79	0.65	1	0.324	10.045	13.459	4.887	0.787	-	Aman
122	1.312	0.09	0.28	0.280	1.79	0.65	1	0.567	10.045	13.459	4.887	0.798	-	Aman
123	1.312	0.09	0.33	0.330	1.79	0.65	1	0.668	10.045	13.459	4.887	0.803	-	Aman
124	1.312	0.09	0.33	0.330	1.79	0.65	1	0.668	10.045	13.459	4.887	0.803	-	Aman
125	1.312	0.09	0.28	0.280	1.79	0.65	1	0.567	10.045	13.459	4.887	0.798	-	Aman
126	1.312	0.09	0.14	0.140	1.79	0.65	1	0.283	10.045	13.459	4.887	0.785	-	Aman
127	1.312	0.09	0.03	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
128	1.312	0.09	-0.11	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
129	1.312	0.09	-0.18	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
130	1.312	0.09	-0.18	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
131	1.312	0.09	-0.12	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
132	1.312	0.09	0.02	0.090	1.79	0.65	1	0.182	10.045	13.459	4.887	0.781	-	Aman
133	2.925	2.81	3.71	3.710	0	0	1.5	4.643	4.446	0.000	0.000	0.215	-	Aman
134	2.925	0.74	1.85	1.850	0	0	1.5	2.315	4.446	0.000	0.000	0.107	-	Aman
135	2.925	2.08	2.04	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
136	2.925	1.46	2.36	2.360	0	0	1.5	2.954	4.446	0.000	0.000	0.137	-	Aman
137	2.925	1.46	3.43	3.430	0	0	1.5	4.293	4.446	0.000	0.000	0.199	-	Aman

138	2.925	2.08	2.76	2.760	0	0	1.5	3.454	4.446	0.000	0.000	0.160	-	Aman
139	2.925	0.74	4	4.000	0	0	1.5	5.006	4.446	0.000	0.000	0.232	-	Aman
140	2.925	2.81	5.17	5.170	0	0	1.5	6.471	4.446	0.000	0.000	0.300	-	Aman
141	2.925	2.81	-0.04	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
142	2.925	0.74	2.01	2.010	0	0	1.5	2.516	4.446	0.000	0.000	0.116	-	Aman
143	2.925	2.08	1.41	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
144	2.925	1.46	0.2	1.460	0	0	1.5	1.827	4.446	0.000	0.000	0.085	-	Aman
145	2.925	1.46	-0.2	1.460	0	0	1.5	1.827	4.446	0.000	0.000	0.085	-	Aman
146	2.925	2.08	-0.84	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
147	2.925	0.74	1.84	1.840	0	0	1.5	2.303	4.446	0.000	0.000	0.107	-	Aman
148	2.925	2.81	0.17	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
149	2.925	2.81	4.41	4.410	0	0	1.5	5.519	4.446	0.000	0.000	0.256	-	Aman
150	2.925	0.74	3.42	3.420	0	0	1.5	4.280	4.446	0.000	0.000	0.198	-	Aman
151	2.925	2.08	1.94	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
152	2.925	1.46	2.21	2.210	0	0	1.5	2.766	4.446	0.000	0.000	0.128	-	Aman
153	2.925	1.46	2.2	2.200	0	0	1.5	2.753	4.446	0.000	0.000	0.127	-	Aman
154	2.925	2.08	2.9	2.900	0	0	1.5	3.630	4.446	0.000	0.000	0.168	-	Aman
155	2.925	0.74	0	0.740	0	0	1.5	0.926	4.446	0.000	0.000	0.043	-	Aman
156	2.925	2.81	2.78	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
157	2.925	2.81	5.35	5.350	0	0	1.5	6.696	4.446	0.000	0.000	0.310	-	Aman
158	2.925	0.74	2.93	2.930	0	0	1.5	3.667	4.446	0.000	0.000	0.170	-	Aman
159	2.925	2.08	4.08	4.080	0	0	1.5	5.106	4.446	0.000	0.000	0.236	-	Aman
160	2.925	1.46	3.94	3.940	0	0	1.5	4.931	4.446	0.000	0.000	0.228	-	Aman
161	2.925	1.46	1.61	1.460	0	0	1.5	1.827	4.446	0.000	0.000	0.085	-	Aman
162	2.925	2.08	1.62	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
163	2.925	0.74	1.55	1.550	0	0	1.5	1.940	4.446	0.000	0.000	0.090	-	Aman
164	2.925	2.81	3.88	3.880	0	0	1.5	4.856	4.446	0.000	0.000	0.225	-	Aman
165	2.925	2.81	3.23	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
166	2.925	0.74	0.16	0.740	0	0	1.5	0.926	4.446	0.000	0.000	0.043	-	Aman
167	2.925	2.08	3.41	3.410	0	0	1.5	4.268	4.446	0.000	0.000	0.198	-	Aman
168	2.925	1.46	1.93	1.930	0	0	1.5	2.416	4.446	0.000	0.000	0.112	-	Aman
169	2.925	1.46	0.68	1.460	0	0	1.5	1.827	4.446	0.000	0.000	0.085	-	Aman
170	2.925	2.08	1.56	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
171	2.925	0.74	1.13	1.130	0	0	1.5	1.414	4.446	0.000	0.000	0.065	-	Aman
172	2.925	2.81	3.16	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
173	2.925	2.81	1.6	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
174	2.925	0.74	-0.61	0.740	0	0	1.5	0.926	4.446	0.000	0.000	0.043	-	Aman
175	2.925	2.08	-0.85	2.080	0	0	1.5	2.603	4.446	0.000	0.000	0.121	-	Aman
176	2.925	1.46	-0.34	1.460	0	0	1.5	1.827	4.446	0.000	0.000	0.085	-	Aman

177	2.925	1.46	1.98	1.980	0	0	1.5	2.478	4.446	0.000	0.000	0.115	-	Aman
178	2.925	2.08	3.45	3.450	0	0	1.5	4.318	4.446	0.000	0.000	0.200	-	Aman
179	2.925	0.74	0.28	0.740	0	0	1.5	0.926	4.446	0.000	0.000	0.043	-	Aman
180	2.925	2.81	2.87	2.810	0	0	1.5	3.517	4.446	0.000	0.000	0.163	-	Aman
181	2.847	-0.65	-0.48	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
182	2.847	1.22	1.19	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
183	2.847	0.14	0.39	0.390	0	0	1.5	0.488	4.693	0.000	0.000	0.023	-	Aman
184	2.847	-0.42	0.26	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
185	2.847	-0.42	-0.6	-0.600	0	0	1.5	0.751	4.693	0.000	0.000	0.160	0.035	Aman
186	2.847	0.14	1.58	1.580	0	0	1.5	1.977	4.693	0.000	0.000	0.092	-	Aman
187	2.847	1.22	2.1	2.100	0	0	1.5	2.628	4.693	0.000	0.000	0.122	-	Aman
188	2.847	-0.65	1	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
189	2.847	-0.65	1.91	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
190	2.847	1.22	-0.18	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
191	2.847	0.14	-0.71	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
192	2.847	-0.42	-0.48	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
193	2.847	-0.42	-0.24	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
194	2.847	0.14	-0.76	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
195	2.847	1.22	-0.02	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
196	2.847	-0.65	1.66	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
197	2.847	-0.65	0.83	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
198	2.847	1.22	1.73	1.730	0	0	1.5	2.165	4.693	0.000	0.000	0.100	-	Aman
199	2.847	0.14	1.11	1.110	0	0	1.5	1.389	4.693	0.000	0.000	0.064	-	Aman
200	2.847	-0.42	-0.57	-0.570	0	0	1.5	0.713	4.693	0.000	0.000	0.152	0.033	Aman
201	2.847	-0.42	-0.12	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
202	2.847	0.14	-0.35	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
203	2.847	1.22	-0.84	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
204	2.847	-0.65	1.84	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
205	2.847	-0.65	0.45	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
206	2.847	1.22	2.67	2.670	0	0	1.5	3.342	4.693	0.000	0.000	0.155	-	Aman
207	2.847	0.14	1.57	1.570	0	0	1.5	1.965	4.693	0.000	0.000	0.091	-	Aman
208	2.847	-0.42	1.22	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
209	2.847	-0.42	0.48	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
210	2.847	0.14	0.08	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
211	2.847	1.22	1.22	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
212	2.847	-0.65	-0.72	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
213	2.847	-0.65	1.01	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
214	2.847	1.22	1.71	1.710	0	0	1.5	2.140	4.693	0.000	0.000	0.099	-	Aman
215	2.847	0.14	0.05	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman

216	2.847	-0.42	1	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
217	2.847	-0.42	-0.31	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
218	2.847	0.14	0.01	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
219	2.847	1.22	1.36	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
220	2.847	-0.65	-0.21	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
221	2.847	-0.65	1.32	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
222	2.847	1.22	-0.48	1.220	0	0	1.5	1.527	4.693	0.000	0.000	0.071	-	Aman
223	2.847	0.14	-0.87	0.140	0	0	1.5	0.175	4.693	0.000	0.000	0.008	-	Aman
224	2.847	-0.42	0.12	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
225	2.847	-0.42	1.35	-0.420	0	0	1.5	0.526	4.693	0.000	0.000	0.112	-	Aman
226	2.847	0.14	0.23	0.230	0	0	1.5	0.288	4.693	0.000	0.000	0.013	-	Aman
227	2.847	1.22	1.63	1.630	0	0	1.5	2.040	4.693	0.000	0.000	0.094	-	Aman
228	2.847	-0.65	-0.77	-0.650	0	0	1.5	0.814	4.693	0.000	0.000	0.173	0.038	Aman
229	2.756	-0.51	-0.38	-0.510	0.02	0	1	1.032	2.287	0.150	0.000	0.461	0.054	Aman
230	2.756	-0.26	-0.38	-0.380	0	0	1	0.769	2.287	0.000	0.000	0.336	0.036	Aman
231	2.756	-0.48	-0.13	-0.480	0	0	1	0.972	2.287	0.000	0.000	0.425	0.045	Aman
232	2.756	-0.24	-0.41	-0.410	0.01	0	1	0.830	2.287	0.075	0.000	0.367	0.042	Aman
233	2.756	-0.24	0.37	-0.240	0.01	0	1	0.486	2.287	0.075	0.000	0.216	0.026	Aman
234	2.756	-0.48	-0.83	-0.830	0	0	1	1.680	2.287	0.000	0.000	0.735	0.078	Aman
235	2.756	-0.26	0.52	-0.260	0	0	1	0.526	2.287	0.000	0.000	0.230	0.024	Aman
236	2.756	-0.51	1.01	-0.510	0.02	0.01	1	1.032	2.287	0.150	0.075	0.466	0.057	Aman
237	2.756	-0.51	0.18	-0.510	0.02	0	1	1.032	2.287	0.150	0.000	0.461	0.054	Aman
238	2.756	-0.26	-0.68	-0.680	0	0	1	1.377	2.287	0.000	0.000	0.602	0.064	Aman
239	2.756	-0.48	-0.16	-0.480	0	0	1	0.972	2.287	0.000	0.000	0.425	0.045	Aman
240	2.756	-0.24	-0.29	-0.240	0.01	0	1	0.486	2.287	0.075	0.000	0.216	0.026	Aman
241	2.756	-0.24	-0.35	-0.350	0.01	0	1	0.709	2.287	0.075	0.000	0.314	0.036	Aman
242	2.756	-0.48	-0.08	-0.480	0	0	1	0.972	2.287	0.000	0.000	0.425	0.045	Aman
243	2.756	-0.26	-0.62	-0.620	0	0	1	1.255	2.287	0.000	0.000	0.549	0.058	Aman
244	2.756	-0.51	0.16	-0.510	0.02	0.01	1	1.032	2.287	0.150	0.075	0.466	0.057	Aman
245	2.756	-0.51	-0.88	-0.880	0.02	0	1	1.781	2.287	0.150	0.000	0.803	0.089	Aman
246	2.756	-0.26	0.37	-0.260	0	0	1	0.526	2.287	0.000	0.000	0.230	0.024	Aman
247	2.756	-0.48	-0.81	-0.810	0	0	1	1.640	2.287	0.000	0.000	0.717	0.076	Aman
248	2.756	-0.24	0.27	-0.240	0.01	0	1	0.486	2.287	0.075	0.000	0.216	0.026	Aman
249	2.756	-0.24	-0.73	-0.730	0.01	0	1	1.478	2.287	0.075	0.000	0.654	0.072	Aman
250	2.756	-0.48	0.17	-0.480	0	0	1	0.972	2.287	0.000	0.000	0.425	0.045	Aman
251	2.756	-0.26	1.14	-0.260	0.01	0	1	0.526	2.287	0.075	0.000	0.234	0.028	Aman
252	2.756	-0.51	0.67	-0.510	0.02	0.01	1	1.032	2.287	0.150	0.075	0.466	0.057	Aman
253	2.756	-0.51	1.79	-0.510	0.02	0	1	1.032	2.287	0.150	0.000	0.461	0.054	Aman
254	2.756	-0.26	0.7	-0.260	0.01	0	1	0.526	2.287	0.075	0.000	0.234	0.028	Aman

255	2.756	-0.48	1.4	-0.480	0.01	0	1	0.972	2.287	0.075	0.000	0.430	0.048	Aman
256	2.756	-0.24	0.51	-0.240	0.01	0	1	0.486	2.287	0.075	0.000	0.216	0.026	Aman
257	2.756	-0.24	-0.71	-0.710	0.01	0	1	1.437	2.287	0.075	0.000	0.636	0.070	Aman
258	2.756	-0.48	-0.13	-0.480	0.01	0	1	0.972	2.287	0.075	0.000	0.430	0.048	Aman
259	2.756	-0.26	-0.47	-0.470	0.01	0	1	0.951	2.287	0.075	0.000	0.421	0.047	Aman
260	2.756	-0.51	-0.51	-0.510	0.02	0.01	1	1.032	2.287	0.150	0.075	0.466	0.057	Aman
261	2.756	-0.51	-0.73	-0.730	0.02	0	1	1.478	2.287	0.150	0.000	0.661	0.075	Aman
262	2.756	-0.26	-0.36	-0.360	0.01	0	1	0.729	2.287	0.075	0.000	0.323	0.037	Aman
263	2.756	-0.48	-0.77	-0.770	0	0	1	1.559	2.287	0.000	0.000	0.682	0.072	Aman
264	2.756	-0.24	-0.3	-0.300	0.01	0	1	0.607	2.287	0.075	0.000	0.269	0.031	Aman
265	2.756	-0.24	-0.42	-0.420	0.01	0	1	0.850	2.287	0.075	0.000	0.376	0.043	Aman
266	2.756	-0.48	-0.61	-0.610	0	0	1	1.235	2.287	0.000	0.000	0.540	0.057	Aman
267	2.756	-0.26	-0.17	-0.260	0	0	1	0.526	2.287	0.000	0.000	0.230	0.024	Aman
268	2.756	-0.51	-0.89	-0.890	0.02	0.01	1	1.802	2.287	0.150	0.075	0.826	0.093	Aman
269	2.756	-0.51	-0.12	-0.510	0.02	0	1	1.032	2.287	0.150	0.000	0.461	0.054	Aman
270	2.756	-0.26	1.01	-0.260	0	0	1	0.526	2.287	0.000	0.000	0.230	0.024	Aman
271	2.756	-0.48	0.16	-0.480	0	0	1	0.972	2.287	0.000	0.000	0.425	0.045	Aman
272	2.756	-0.24	-0.57	-0.570	0.01	0	1	1.154	2.287	0.075	0.000	0.510	0.057	Aman
273	2.756	-0.24	-0.19	-0.240	0.01	0	1	0.486	2.287	0.075	0.000	0.216	0.026	Aman
274	2.756	-0.48	-0.84	-0.840	0	0	1	1.700	2.287	0.000	0.000	0.744	0.079	Aman
275	2.756	-0.26	-0.21	-0.260	0	0	1	0.526	2.287	0.000	0.000	0.230	0.024	Aman
276	2.756	-0.51	-0.57	-0.510	0.02	0.01	1	1.032	2.287	0.150	0.075	0.466	0.057	Aman
277	2.664	-0.08	-0.3	-0.300	0.08	0.01	1	0.607	2.448	0.602	0.075	0.280	0.057	Aman
278	2.664	-0.49	-0.26	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
279	2.664	-0.44	-0.61	-0.610	0.12	0.02	1	1.235	2.448	0.902	0.150	0.581	0.101	Aman
280	2.664	-0.06	0.22	-0.060	0.13	0.02	1	0.121	2.448	0.977	0.150	0.097	-	Aman
281	2.664	-0.06	-0.27	-0.270	0.12	0.02	1	0.547	2.448	0.902	0.150	0.272	0.070	Aman
282	2.664	-0.44	-0.1	-0.440	0.12	0.03	1	0.891	2.448	0.902	0.226	0.427	0.089	Aman
283	2.664	-0.49	-0.68	-0.680	0.11	0.02	1	1.377	2.448	0.827	0.150	0.642	0.105	Aman
284	2.664	-0.08	0.22	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman
285	2.664	-0.08	-0.26	-0.260	0.08	0.01	1	0.526	2.448	0.602	0.075	0.246	0.053	Aman
286	2.664	-0.49	-0.25	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
287	2.664	-0.44	-0.46	-0.440	0.12	0.02	1	0.891	2.448	0.902	0.150	0.423	0.086	Aman
288	2.664	-0.06	0	-0.060	0.12	0.02	1	0.121	2.448	0.902	0.150	0.094	-	Aman
289	2.664	-0.06	0.02	-0.060	0.12	0.02	1	0.121	2.448	0.902	0.150	0.094	-	Aman
290	2.664	-0.44	-0.46	-0.440	0.12	0.03	1	0.891	2.448	0.902	0.226	0.427	0.089	Aman
291	2.664	-0.49	-0.25	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
292	2.664	-0.08	-0.22	-0.220	0.08	0.01	1	0.445	2.448	0.602	0.075	0.212	0.049	Aman
293	2.664	-0.08	0.19	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman

294	2.664	-0.49	-0.67	-0.670	0.11	0.02	1	1.356	2.448	0.827	0.150	0.633	0.104	Aman
295	2.664	-0.44	-0.12	-0.440	0.12	0.02	1	0.891	2.448	0.902	0.150	0.423	0.086	Aman
296	2.664	-0.06	-0.34	-0.340	0.13	0.02	1	0.688	2.448	0.977	0.150	0.337	0.079	Aman
297	2.664	-0.06	0.29	-0.060	0.13	0.02	1	0.121	2.448	0.977	0.150	0.097	-	Aman
298	2.664	-0.44	-0.71	-0.710	0.12	0.03	1	1.437	2.448	0.902	0.226	0.685	0.114	Aman
299	2.664	-0.49	-0.14	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
300	2.664	-0.08	-0.04	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman
301	2.664	-0.08	-0.13	-0.130	0.08	0.01	1	0.263	2.448	0.602	0.075	0.136	-	Aman
302	2.664	-0.49	-0.85	-0.850	0.11	0.02	1	1.721	2.448	0.827	0.150	0.821	0.121	Aman
303	2.664	-0.44	-0.16	-0.440	0.12	0.02	1	0.891	2.448	0.902	0.150	0.423	0.086	Aman
304	2.664	-0.06	-0.44	-0.440	0.13	0.02	1	0.891	2.448	0.977	0.150	0.427	0.089	Aman
305	2.664	-0.06	0.24	-0.060	0.13	0.02	1	0.121	2.448	0.977	0.150	0.097	-	Aman
306	2.664	-0.44	-0.73	-0.730	0.12	0.03	1	1.478	2.448	0.902	0.226	0.706	0.116	Aman
307	2.664	-0.49	-0.36	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
308	2.664	-0.08	-0.25	-0.250	0.08	0.01	1	0.506	2.448	0.602	0.075	0.237	0.052	Aman
309	2.664	-0.08	-0.05	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman
310	2.664	-0.49	-0.66	-0.660	0.11	0.02	1	1.336	2.448	0.827	0.150	0.623	0.103	Aman
311	2.664	-0.44	-0.5	-0.440	0.12	0.02	1	0.891	2.448	0.902	0.150	0.423	0.086	Aman
312	2.664	-0.06	-0.15	-0.150	0.13	0.02	1	0.304	2.448	0.977	0.150	0.172	-	Aman
313	2.664	-0.06	-0.12	-0.120	0.13	0.02	1	0.243	2.448	0.977	0.150	0.147	-	Aman
314	2.664	-0.44	-0.48	-0.440	0.12	0.03	1	0.891	2.448	0.902	0.226	0.427	0.089	Aman
315	2.664	-0.49	-0.68	-0.680	0.11	0.02	1	1.377	2.448	0.827	0.150	0.642	0.105	Aman
316	2.664	-0.08	0.01	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman
317	2.664	-0.08	-0.3	-0.300	0.08	0.02	1	0.607	2.448	0.602	0.150	0.284	0.060	Aman
318	2.664	-0.49	-0.49	-0.490	0.11	0.02	1	0.992	2.448	0.827	0.150	0.464	0.087	Aman
319	2.664	-0.44	-0.6	-0.600	0.12	0.02	1	1.215	2.448	0.902	0.150	0.571	0.101	Aman
320	2.664	-0.06	0.32	-0.060	0.12	0.02	1	0.121	2.448	0.902	0.150	0.094	-	Aman
321	2.664	-0.06	-0.52	-0.520	0.13	0.02	1	1.053	2.448	0.977	0.150	0.501	0.096	Aman
322	2.664	-0.44	-0.27	-0.440	0.12	0.03	1	0.891	2.448	0.902	0.226	0.427	0.089	Aman
323	2.664	-0.49	-0.72	-0.720	0.11	0.02	1	1.457	2.448	0.827	0.150	0.682	0.109	Aman
324	2.664	-0.08	0.13	-0.080	0.08	0.01	1	0.162	2.448	0.602	0.075	0.095	-	Aman
325	2.709	-0.01	-0.15	-0.150	0.35	0.05	1	0.304	2.367	2.632	0.376	0.255	-	Aman
326	2.709	-0.77	-0.61	-0.770	0.3	0.1	1	1.559	2.367	2.256	0.752	0.974	0.199	Aman
327	2.709	-0.77	-0.86	-0.770	0.3	0.07	1	1.559	2.367	2.256	0.526	0.950	0.189	Aman
328	2.709	-0.01	0.13	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
329	2.709	-0.01	0	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
330	2.709	-0.77	-0.69	-0.770	0.29	0.1	1	1.559	2.367	2.180	0.752	0.966	0.196	Aman
331	2.709	-0.77	-0.69	-0.770	0.29	0.07	1	1.559	2.367	2.180	0.526	0.942	0.186	Aman
332	2.709	-0.01	0	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman

333	2.709	-0.01	0.12	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
334	2.709	-0.77	-0.87	-0.770	0.3	0.1	1	1.559	2.367	2.256	0.752	0.974	0.199	Aman
335	2.709	-0.77	-0.59	-0.770	0.3	0.07	1	1.559	2.367	2.256	0.526	0.950	0.189	Aman
336	2.709	-0.01	-0.13	-0.130	0.35	0.06	1	0.263	2.367	2.632	0.451	0.241	-	Aman
337	2.709	-0.01	0.12	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
338	2.709	-0.77	-0.95	-0.770	0.3	0.1	1	1.559	2.367	2.256	0.752	0.974	0.199	Aman
339	2.709	-0.77	-0.67	-0.770	0.3	0.07	1	1.559	2.367	2.256	0.526	0.950	0.189	Aman
340	2.709	-0.01	-0.14	-0.140	0.35	0.06	1	0.283	2.367	2.632	0.451	0.249	-	Aman
341	2.709	-0.01	0	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
342	2.709	-0.77	-0.84	-0.770	0.29	0.1	1	1.559	2.367	2.180	0.752	0.966	0.196	Aman
343	2.709	-0.77	-0.84	-0.770	0.29	0.07	1	1.559	2.367	2.180	0.526	0.942	0.186	Aman
344	2.709	-0.01	-0.01	-0.010	0.35	0.05	1	0.020	2.367	2.632	0.376	0.135	-	Aman
345	2.709	-0.01	-0.14	-0.140	0.35	0.05	1	0.283	2.367	2.632	0.376	0.246	-	Aman
346	2.709	-0.77	-0.67	-0.770	0.29	0.1	1	1.559	2.367	2.180	0.752	0.966	0.196	Aman
347	2.709	-0.77	-0.94	-0.770	0.3	0.07	1	1.559	8.131	2.256	0.526	0.315	0.189	Aman
348	2.709	-0.01	0.14	-0.010	0.35	0.06	1	0.020	2.367	2.632	0.451	0.138	-	Aman
349	2.548	1.38	1.39	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman
350	2.548	1.38	1.37	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman
351	2.548	1.38	1.39	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman
352	2.548	1.38	1.39	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman
353	2.548	1.38	1.38	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman
354	2.548	1.38	1.38	1.380	0.59	0	1	2.794	2.676	4.436	0.000	0.316	-	Aman

Tabel 3.8 : Perhitungan Baut dan Ball Joint

Tabel 3.8 : Perhitungan baut

Joint	P max	M max		D	A	S	fa	Fa	fbx	fby	Fb	int	Chek
	(kg)	Mx (kg.m)	My (kg.m)	cm	cm^2	cm^3	kg/cm^2	(ksi)	kg/cm^2	kg/cm^2	ksi		
1 - 24	335.66178	0.000	0.000	0.625	1.979	0.024	169.582	20.0	0.000	0.000	23.760	0.0248134	Aman
25 - 48	-294.83805	0.000	0.000	0.625	1.979	0.024	-148.957	20.0	0.000	0.000	23.760	0.0217956	Aman
49 - 72	-294.83805	0.230	0.115	0.625	1.979	0.024	-148.957	20.0	9.619	4.809	23.760	0.1559087	Aman
73 - 96	-231.33447	0.230	0.115	0.625	1.979	0.024	-116.874	20.0	9.619	4.809	23.760	0.1606032	Aman
97 -120	-349.26969	11.061	6.452	1.500	11.400	0.331	-30.638	20.0	33.398	19.482	23.760	0.6468253	Aman
121 - 132	-349.26969	20.623	7.489	1.500	11.400	0.331	-30.638	20.0	62.274	22.613	23.760	1.0410382	Aman
133	625.96386	6.798	0.000	1.000	5.067	0.098	123.535	20.0	69.275	0.000	23.760	0.8713111	Aman

BAB IV

PEMBAHASAN

4.1 Pengecekan Kapasitas Batang

Berdasarkan perhitungan gaya batang dari program SAP 90, dilakukan pengecekan kapasitas batang. Pengecekan itu dilakukan dengan menggunakan rumus-rumus AISC dan mengganti profil untuk batang-batang yang tidak aman.

Dengan k = 1

Cm = 0,85

E = 29000 ksi

Fy = 36 ksi

Fb = 0,66.Fy = 23.76 ksi

Ft = 0,6.Fy

1. Untuk batang desak (P_{max} negatif)

1.a Jika fa/Fa > 0,15 maka

Persamaan interaksi 1 =

$$\frac{fa}{Fa} + \frac{C_{mx}\, f_{bx}}{(1 - fa/F'_{ex})\, F_{bx}} + \frac{C_{my}\, f_{by}}{(1 - fa/F'_{ey})\, F_{by}} \leq 1{,}0$$

Persamaan interaksi 2 =

$$\frac{fa}{0{,}6.Fy} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1{,}0$$

1.b Jika fa/Fa $\leq$ 0,15 , maka hanya ada satu persamaan persamaan interaksi, yaitu :

$$\frac{fa}{Fa} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1{,}0$$

2. Untuk batang tarik (Pmax negatif) maka hanya ada satu persamaan interkasi, yaitu :

$$\frac{fa}{Ft} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} \leq 1{,}0$$

Setelah dilakukan perhitungan dan penggantian profil didapatkan hasil akhir yaitu : batang lapisan 1 dan 2 menggunakan profil diameter 1,5 inci, dan batang lapisan 3 – 6 menggunakan profil diameter 1 inci. Sedangkan batang 1-24 yang memiliki gaya batang dan momen = 0, untuk kemudahan pabrikasi digunakan juga profil diameter 1 inci.

4.2 Perhitungan Alat Sambung

Alat sambung (baut) dihitung berdasarkan gaya batang dan momen ujung maksimum yang bekerja pada joint tersebut. Untuk kemudahan pabrikasi maka pada setiap lapis digunakan diameter baut dan *ball joint* yang sama. Baut yang digunakan adalah baut A307.

Perhitungan dilakukan dengan mengambil nilai :

Tegangan leleh baut = 36 ksi

Tegangan aksial ijin = 0,33 x Fu

= 20 ksi

Tinggi baut minimum = (0,8 - 1) D

Balljoint yang digunakan adalah bola baja denagan tegangan leleh 4480 kg/cm2. Sehingga tidak perlu dilakukan pengecekaan kekuatan *ball joint*, karena tegangan lelehnya jauh lebih besar daripaada tegangan leleh baut. Oleh karena itu *ball joint* dianggap kuat.

Meskipun dipakai *ball joint* yang berbeda ukurannya dengan asumsi awal, tidak dilakukan perhitungan ulang dalam perencanaan. Karena ukuran *ball joint* yang dipakai masih lebih kecil dari asumsi awal.

Karena gaya batang dan momen ujung yang diperoleh relatif kecil maka baut dengan ukuran minimum cukup aman. Untuk itu cukup digunakan *ball joint* diameter 2,5 inci, dan baut diameter 5/8 inci dengan panjang ulir 20 mm pada tiap join.

4.3 **Gaya Batang dan Momen**

Dari hasil perhitungan gaya-gaya batang pada output SAP 90 dapat dilihat sebagian besar batang memiliki momen yang sangat kecil. Hal tersebut dikarenakan posisi batang yang memungkinkan terjadinya momen yang saling meniadakan. Hal ini dapat dilihat pada join-join lapisan 1-4, berbeda dengan lapis

5 dan 6, dimana momen yang terjadi cenderung lebih besar karena join-joinnya lemah. Join-join lemah ini terjadi karena konfigurasi batang yang berubah dari bawah ke atas, sehingga batang-batang yang menopang join lebih sedikit.

4.4 Berat Struktur

Berat total struktur dihitung berdasarkan jumlah berat seluruh batang pipa, barat penutup, dan alat sambung.

1. Berat Pipa (Bj = 2,72 lbs/ft = 4,04736 kg/m)

   903,48 m x 4,04736 = 3657,116047 kg

2. Berat penutup *(fiber glass)*

   18 x 634,608 m^2 = 11422,944 kg

3. *Ball joint* + *endcone* + *bolt* (berat = 8 kg)

   8 x 133 = 1064,0 kg

   Berat Total = 16144,06 kg

   Berat struktur = 25,4995 kg/m^2

Jika dibandimgkan dengan kubah yang menggunakan beton dengan tebal 20 cm dengan bj = 2400 kg/m^3 maka didapatkan berat struktur = 480 kg/m^2. Dengan demikian berat kubah dengan struktur ruang jauh lebih ringan.

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Dari hasil perencanaan struktur ruang bentuk kubah dapat ditarik kesimpulan sebagai berikut :

1. Struktur kubah ini menggunakan profil pipa yang berbeda, karena disesuaikan dengan kebutuhan batangnya,
2. karena kubah yang direncanakan memiliki bentang yang relatif kecil dan jenis penutup yang ringan maka kubah satu lapis lebih efektif,
3. untuk perhitungan gaya batang struktur ruang, program SAP 90 dapat digunakan,
4. momen batang yang terjadi relatif kecil, karena berdasarkan posisi batang-batang yang menyebabkan terjadinya momen yang saling meniadakan,
5. dimensi batang yang digunakan untuk batang horisontal lapisan 1, 3, 4, 5 dan 6 adalah diameter 1", lapisan 2 diameter 1,5". Sedangkan batang diagonal lapisan 1 dan 2 diameter 1,5", dan lapisan 3-6 diameter 1".
6. tidak disertakannya beban gempa dalam perencanaan ini karena berat keseluruhan kubah relatif kecil sehingga pengaruh beban gempa

terhadapstruktur kubah dapat diabaikan. Sedangkan beban gempa diperhitungkan bila merencanakan balok dan kolom struktur secara keseluruhan atau bila berat total struktur kubah cukup besar,

7. alat sambung Mero memiliki kekuatan yang besar dan proses pemasangan yang mudah,
8. untuk beban simetris arah vertikal gaya aksial batang lapisan 1 dan 2 cenderung tarik, dan untuk batang lapisan 3 – 6 cenderung desak, makin ke atas gaya desak batang bertambah besar.

5.2 Saran

1. Dalam pemilihan konfigurasi batang sebaiknya disesuaikan dengan panjang bentang dan jenis penutup yang akan digunakan. Dan untuk perencanaannya diupayakan sedemikian rupa sehingga setiap joint menerima beban yang besarnya cenderung seragam.
2. Dari perbedaan gaya batang yang terjadi diperoleh dimensi batang yang berbeda pada lapisan tertentu. Namun guna kemudahan pelaksanaan pemasangan disarankan menggunakan profil dengan dimensi yang sama dan memenuhi syarat keamanan.
3. Asumsi awal batang dilakukan dengan mempertimbangkan panjang batang, luas daerah pembebanan dan mutu baja, disamping berdasarkan pengalaman pada proyek struktur ruang yang ada.
4. Agar perhitungan beban penutup lebih akurat, perlu dipertimbangkan juga posisi penutup yang berada diatas rangka kubah, karena pada kenyataannya

luas penutup tersebut tidak sama dengan luas bidang segitiga yang membentuk rangka kubah.

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LAMPIRAN

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KARTU PESERTA TUGAS AKHIR

No.	Nama	No. Mhs.	N.I.R.M.	Bidang Studi
1	LIANA SARI	93 310 057		STRUKTUR
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JUDUL TUGAS AKHIR : DISAIN STRUKTUR RANGKA ATAP BAJA BENTUK KUBAH SATU LAPIS DENGAN PROGRAM ETABS

Dosen Pembimbing I : DR.IR. EDY PURWANTO, CES.DEA
Dosen Pembimbing II : IR. H. ILMAN NOOR, MSCE

Yogyakarta, 08 Juni 1998
An. Dekan
Ketua Jurusan Teknik Sipil,

IR. H. TADJUDDIN BMA., MS

1

2

CATATAN - KONSULTASI

No.	Tanggal	Konsultasi ke :	KETERANGAN	Paraf
01.	21/6 - '98	I & II .	- Proposal T.A di jilid . - Konsultasi dilanjutkan ke Pop. Imam Noor .	[illegible]
	[illegible]		[illegible]	[illegible]
	5/10 - 98		Acc , lanjutkan ke pemb. I	[illegible]
	6/10 - 98		- Laporan dilengkapi dg Daftar isi, lampiran & rumus pendukung supaya lebih jelas - Laporan disempurnakan	[illegible]

Acc untuk dijilid [illegible] 7/12 - 98

Acc untuk maju sidang pendadaran [illegible] 14/10 - 98

PIPE
Dimensions and properties

Dimensions				Weight per Ft Lbs. Plain Ends	Properties				Schedule No.
Nominal Diameter In.	Outside Diameter In.	Inside Diameter In.	Wall Thickness In.		A In.^{2}	I In.^{4}	S In.^{3}	r In.	
Standard Weight									
½	.840	.622	.109	.85	.250	.017	.041	.261	40
¾	1.050	.824	.113	1.13	.333	.037	.071	.334	40
1	1.315	1.049	.133	1.68	.494	.087	.133	.421	40
1¼	1.660	1.380	.140	2.27	.669	.195	.235	.540	40
1½	1.900	1.610	.145	2.72	.799	.310	.326	.623	40
2	2.375	2.067	.154	3.65	1.07	.666	.561	.787	40
2½	2.875	2.469	.203	5.79	1.70	1.53	1.06	.947	40
3	3.500	3.068	.216	7.58	2.23	3.02	1.72	1.16	40
3½	4.000	3.548	.226	9.11	2.68	4.79	2.39	1.34	40
4	4.500	4.026	.237	10.79	3.17	7.23	3.21	1.51	40
5	5.563	5.047	.258	14.62	4.30	15.2	5.45	1.88	40
6	6.625	6.065	.280	18.97	5.56	28.1	8.50	2.25	40
8	8.625	7.981	.322	28.55	8.40	72.5	16.8	2.94	40
10	10.750	10.020	.365	40.48	11.9	161	29.9	3.67	40
12	12.750	12.000	.375	49.56	14.6	279	43.8	4.38	—
Extra Strong									
½	.840	.546	.147	1.09	.320	.020	.048	.250	80
¾	1.050	.742	.154	1.47	.433	.045	.085	.321	80
1	1.315	.957	.179	2.17	.639	.106	.161	.407	80
1¼	1.660	1.278	.191	3.00	.881	.242	.291	.524	80
1½	1.900	1.500	.200	3.63	1.07	.391	.412	.605	80
2	2.375	1.939	.218	5.02	1.48	.868	.731	.766	80
2½	2.875	2.323	.276	7.66	2.25	1.92	1.34	.924	80
3	3.500	2.900	.300	10.25	3.02	3.89	2.23	1.14	80
3½	4.000	3.364	.318	12.50	3.68	6.28	3.14	1.31	80
4	4.500	3.826	.337	14.98	4.41	9.61	4.27	1.48	80
5	5.563	4.813	.375	20.78	6.11	20.7	7.43	1.84	80
6	6.625	5.761	.432	28.57	8.40	40.5	12.2	2.19	80
8	8.625	7.625	.500	43.39	12.6	106	24.5	2.88	80
10	10.750	9.750	.500	54.74	16.1	212	39.4	3.63	80
12	12.750	11.750	.500	65.42	19.2	362	56.7	4.33	—
Double-Extra Strong									
2	2.375	1.503	.436	9.03	2.66	1.31	1.10	.703	—
2½	2.875	1.771	.552	13.69	4.03	2.87	2.00	.844	—
3	3.500	2.300	.600	18.58	5.47	5.99	3.42	1.05	—
4	4.500	3.152	.674	27.54	8.10	15.3	6.79	1.37	—
5	5.563	4.063	.750	38.55	11.3	33.6	12.1	1.72	—
6	6.625	4.897	.864	53.16	15.6	66.3	20.0	2.06	—
8	8.625	6.875	.875	72.42	21.3	162	37.6	2.76	—

The listed sections are available in conformance with ASTM Specification A53 Grade B or A501. Other sections are made to these specifications. Consult with pipe manufacturers or distributors for availability.

```
  91      F=48.978,6.448,-66.846,0,0,0
  92      F=42.530,17.116,-62.291,0,0,0
  93      F=31.381,24.064,-53.490,0,0,0
  94      F=18.465,24.064,41.044,0,0,0
  95      F=7.297,17.616,-25.802,0,0,0
  96      F=.848,6.448,.088,0,0,0
  97      F=0,0,0,0,0,0
  98      F=1.210,4.516,10.349,0,0,0
  99      F=3.786,6.558,16.765,0,0,0
  100     F=9.032,9.032,28.277,0,0,0
  101     F=11.359,6.558,29.037,0,0,0
  102     F=16.854,4.516,38.627,0,0,0
  103     F=15.146,0,33.529,0,0,0
  104     F=16.854,-4.516,38.627,0,0,0
  105     F=11.359,-6.558,29.037,0,0,0
  106     F=9.032,-9.032,28.277,0,0,0
  107     F=3.786,-6.558,16.765,0,0,0
  108     F=1.210,-4.516,10.349,0,0,0
  109     F=0,0,0,0,0,0
  110     F=1.210,-4.516,-10.349,0,0,0
  111     F=3.786,-6.558,-16.765,0,0,0
  112     F=9.032,-9.032,-28.277,0,0,0
  113     F=11.359,-6.558,-29.037,0,0,0
  114     F=16.854,-4.516,-38.627,0,0,0
  115     F=15.146,0,-33.529,0,0,0
  116     F=16.854,4.516,-38.627,0,0,0
  117     F=11.359,6.558,-29.037,0,0,0
  118     F=9.032,9.032,-28.277,0,0,0
  119     F=3.786,6.558,-16.765,0,0,0
  120     F=1.210,4.516,-10.349,0,0,0
  121     F=0,   121     F=0,0,0,0,0,0
  122     F=1.102,1.908,10.229,0,0,0
  123     F=3.305,1.908,17.718,0,0,0
  124     F=4.406,0,20.458,0,0,0
  125     F=3.305,-1.908,17.718,0,0,0
  126     F=1.102,-1.908,10.229,0,0,0
  127     F=0,0,0,0,0,0
  128     F=1.102,-1.908,-10.229,0,0,0
  129     F=3.305,-1.908,-17.718,0,0,0
  130     F=4.406,0,-20.458,0,0,0
  131     F=3.305,1.908,-17.718,0,0,0
  132     F=1.102,1.908,-10.229,0,0,0
  133     F=0,0,0,0,0,0
:
COMBO
1    C=1.0,1.0
2    C=1.0,1.0,0.0022046
```

H2 - UNITS Kip-In

A M E E L E M E N T F O R C E S

T	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
1	1	.00						
	2	.00						
2	1	.00						
	2	.00						
3	1	.00						
	2	.00						
4	1	.00						
	2	.00						
5	1	.00						
	2	.00						
6	1	.00						
	2	.00						
7	1	.00						
	2	.00						
8	1	.00						
	2	.00						
9	1	.00						
	2	.00						
0	1	.00						
	2	.00						
1	1	.00						
	2	.00						
2	1	.00						
	2	.00						
3	1	.00						
	2	.00						
4	1	.00						
	2	.00						
5	1	.00						
	2	.00						
3	1	.00						
	2	.00						
	1	.00						
	2	.00						

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
18								
	1	.01						
	2	.00						
19								
	1	.01						
	2	.01						
20								
	1	.01						
	2	.01						
21								
	1	.01						
	2	.01						
22								
	1	.01						
	2	.00						
23								
	1	.01						
	2	.00						
24								
	1	.01						
	2	.00						
25								
	1	.85						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	1	-.17				2 -.17		
					.00			
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
26								
	1	-.95						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-2.48						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
27								
	1	.85						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-.41						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
28	----------							
	1	2.25						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	2.77						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
29	----------							
	1	.65						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	2.84						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
30	----------							
	1	-.95						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	1.82						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0			54.0	.00	.00
.00		.00						
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
31	----------							
	1	.65						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	2.46						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
32	----------							
	1	3.25						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	2.36						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
33	----------							
	1	.65						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-.38						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
34	----------							
	1	-.95						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-1.62						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
35	----------							
	1	.85						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

F R A M E E L E M E N T F I E L D S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			50.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	1.21						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
88								
	1	1.25						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	3.32						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
87								
	1	.88						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	.09						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
86								
	1	-.35						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-2.90						
								.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0					
.00		.01			54.0	.00		.00
			1.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
89								
	1	.65						
								.00
			1.9	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-1.06						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
40	----------							
	1	2.25						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	1.54						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
41	----------							
	1	.65						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	.08						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
42	----------							
	1	-.95						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-2.24						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0			54.0	.00	.00
.00		.00						
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
43	----------							
	1	.85						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-1.01						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
44								
	1	1.25						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	.58						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
45								
	1	.85						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-.33						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
46								
	1	-.85						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	-1.01						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
47								
	1	.85						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END I	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	1.14						.00
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
48								
	1	2.38						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
	2	2.48						.01
			.0	.00	.00	.00	.00	
			27.0	.00	.00	.00	.00	
			54.0	.00	.00	.00	.00	
			80.9	.00	.00	.00	.00	
			107.9	.00	.00	.00	.00	
49								
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.16						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
50								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.78						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4			46.4	.00	.00
.00		.00						
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
51								
	1	-.28						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMP	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.70						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
51								
	1	.80						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.47						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
53								
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	1.31						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
54								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	1.28						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4			46.4	.00	.00
.00		.00						
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
55								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	1.18						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
56	----------							
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	1.12						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
57	----------							
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.43						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
58	----------							
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.39						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4			46.4 .00		.00
.00		.00						
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
59	----------							
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.17						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
60								
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.55						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
61								
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.27						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.30	
62								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-1.06						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4			46.4 .00		.00
.00		.00						
			69.6	.00	.00	.00	.00	
			92.8	.00	-.00	.00	.30	
63								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-1.47						.00
			.0	.00	-.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
64								
	1	.80						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.72						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
65								
	1	.80						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.51						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
66								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-1.22						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
67								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

PAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	1	-1.51						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
69								
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-1.00						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
88								
	1	.80						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.75						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
70								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.94						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4			46.4	.00	.00
.00		.00						
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
71								
	1	-.29						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	

JEAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
	2	.16						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
76	----------							
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
	2	.51						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
77	----------							
	1	-.07						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
	2	.81						-.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
78	----------							
	1	-.27						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7	.00	-.01	.00	.02	
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
	2	.72						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7			36.7 .00	-.01	
.00		.02						
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
79	----------							
	1	-.07						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			89.8	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	-.36						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
72	----------							
	1	.30						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
	2	.84						.00
			.0	.00	.00	.00	.00	
			23.2	.00	.00	.00	.00	
			46.4	.00	.00	.00	.00	
			69.6	.00	.00	.00	.00	
			92.8	.00	.00	.00	.00	
73	----------							
	1	-.07						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
	2	-.14						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
74	----------							
	1	-.27						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7	.00	-.01	.00	.02	
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
	2	-.25						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7			36.7	.00	-.01
.00		.02						
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
75	----------							
	1	-.07						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
	2	.75						.00
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
80								
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
	2	.46						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
81								
	1	-.07						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
	2	.24						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
82								
	1	-.27						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7	.00	-.01	.00	.02	
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
	2	-.11						.00
			.0	.00	-.02	.00	.02	
			18.4	.00	-.02	.00	.02	
			36.7	.00	-.02	.00	.02	
			55.1	.00	-.02	.00	.02	
			73.5	.00	-.02	.00	.02	
83								
	1	-.07						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.11	
			73.5	.00	.01	.00	-.12	
	2	-.22						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.12	
84	----------							
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.11	
	2	-1.02						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.11	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.11	
85	----------							
	1	-.07						-.01
			.0	.00	.01	.00	-.12	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.11	
	2	-.05						-.01
			.0	.00	.01	.00	-.12	
			18.4	.00	.01	.00	-.11	
			36.7	.00	.01	.00	-.11	
			55.1	.00	.01	.00	-.11	
			73.5	.00	.01	.00	-.11	
86	----------							
	1	-.27						.00
			.0	.00	-.01	.00	.12	
			18.4	.00	-.01	.00	.12	
			36.7	.00	-.01	.00	.12	
			55.1	.00	-.01	.00	.12	
			73.5	.00	-.01	.00	.12	
	2	-.81						.00
			.0	.00	-.02	.00	.12	
			18.4	.00	-.02	.00	.12	
			36.7			36.7	.00	-.02
.00		.02						
			55.1	.00	-.02	.00	.12	
			73.5	.00	-.02	.00	.12	
87	----------							
	1	-.07						.01
			.0	.00	.01	.00	-.11	
			18.4	.00	.01	.00	-.11	
			36.7	.00	.01	.00	-.11	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
	2	-.82						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
88								
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
	2	-.83						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
89								
	1	-.07						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
	2	-.84						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
90								
	1	-.27						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7	.00	-.01	.00	.02	
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
	2	-1.13						.00
			.0	.00	-.02	.00	.02	
			18.4	.00	-.02	.00	.02	
			36.7	.00	-.02	.00	.02	
			55.1	.00	-.02	.00	.02	
			73.5	.00	-.02	.00	.02	
91								
	1	-.07						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
	2	-.96						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
92								
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
	2	-.82						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
93								
	1	-.07						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
	2	-.39						-.01
			.0	.00	.01	.00	-.02	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.01	
94								
	1	-.27						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7	.00	-.01	.00	.02	
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
	2	-.30						.00
			.0	.00	-.01	.00	.02	
			18.4	.00	-.01	.00	.02	
			36.7			36.7	.00	-.01
.00		.00						
			55.1	.00	-.01	.00	.02	
			73.5	.00	-.01	.00	.02	
95								
	1	-.07						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
	2	-.08						.01
			.0	.00	.01	.00	-.01	
			18.4	.00	.01	.00	-.01	
			36.7	.00	.01	.00	-.01	
			55.1	.00	.01	.00	-.01	
			73.5	.00	.01	.00	-.02	
96	----------							
	1	-.07						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
	2	-.13						.00
			.0	.00	-.01	.00	.01	
			18.4	.00	-.01	.00	.01	
			36.7	.00	-.01	.00	.01	
			55.1	.00	-.01	.00	.01	
			73.5	.00	-.01	.00	.01	
97	----------							
	1	-.37						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.42	-.03	-.71	
	2	-.31						-.02
			.0	.02	-.39	-.03	.66	
			12.7	.02	-.19	-.03	.32	
			25.4	.02	.01	-.03	-.02	
			38.2	.02	.21	-.03	-.35	
			50.9	.02	.41	-.03	-.69	
98	----------							
	1	-.21						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.29	.04	.48	
			50.9	-.02	-.56	.04	.93	
	2	-.08						.00
			.0	-.02	.54	.04	-.88	
			12.7	-.02	.27	.04	-.43	
			25.4			25.4	-.02	-.01
.04		.02						
			38.2	-.02	-.29	.04	.48	
			50.9	-.02	-.56	.04	.93	
99	----------							
	1	-.21						-.01
			.0	.02	-.56	-.04	.93	
			12.7	.02	-.29	-.04	.48	
			25.4	.02	-.01	-.04	.02	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.2	.02	.27	-.04	-.44	
			50.9	.02	.55	-.04	-.90	
	2	.07						-.00
			.0	.02	-.59	-.04	.93	
			12.7	.02	-.28	-.04	.48	
			25.4	.02	-.01	-.04	.02	
			38.2	.02	.27	-.04	-.44	
			50.9	.02	.55	-.04	-.89	
100								
	1	-.37						.02
			.0	-.02	.45	.03	-.71	
			12.7	-.02	.21	.03	-.36	
			25.4	-.02	-.01	.03	-.01	
			38.2	-.02	-.24	.03	.33	
			50.9	-.02	-.47	.03	.68	
	2	.01						.02
			.0	-.02	.45	.03	-.70	
			12.7	-.02	.21	.03	-.36	
			25.4	-.02	-.01	.03	-.02	
			38.2	-.02	-.24	.03	.33	
			50.9	-.02	-.47	.03	.67	
101								
	1	-.37						-.02
			.0	.02	-.46	-.03	.68	
			12.7	.02	-.22	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.45	-.03	-.71	
	2	.15						-.02
			.0	.02	-.46	-.03	.67	
			12.7	.02	-.22	-.03	.33	
			25.4	.02	.00	-.03	-.01	
			38.2	.02	.21	-.03	-.35	
			50.9	.02	.41	-.03	-.68	
102								
	1	-.21						.01
			.0	-.02	.58	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.29	.04	.48	
			50.9	-.02	-.58	.04	.93	
	2	.38						.01
			.0	-.02	.58	.03	-.87	
			12.7	-.02	.28	.03	-.43	
			25.4	-.02	-.01	.03	.02	
			38.2	-.02	-.30	.03	.46	
			50.9	-.02	-.61	.03	.90	
103								
	1	-.21						-.01
			.0	.02	-.59	-.04	.87	-.01
			12.7	.02	-.28	-.04	.43	-.01
			25.4	.02	.02	-.04	-.02	-.01

JBAM2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			88.2	.02	.17	-.04	-.44	
			50.8	.02	.55	-.04	-.90	
	2	.37						-.01
			.0	.02	-.54	-.03	.91	
			12.7	.02	-.27	-.03	.46	
			25.4	.02	-.01	-.03	.01	
			38.2	.02	.26	-.03	-.43	
			50.8	.02	.53	-.03	-.87	
104								
	1	-.37						.02
			.0	-.02	.42	.03	-.71	
			12.7	-.02	.21	.03	-.36	
			25.4	-.02	.01	.03	-.01	
			38.2	-.02	-.20	.03	.33	
			50.8	-.02	-.40	.03	.68	
	2	.15						.02
			.0	-.02	.41	.03	-.69	
			12.7	-.02	.21	.03	-.35	
			25.4	-.02	.01	.03	-.01	
			38.2	-.02	-.20	.03	.33	
			50.8	-.02	-.40	.03	.67	
105								
	1	-.37						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.8	.02	.42	-.03	-.71	
	2	.02						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.02	
			38.2	.02	.21	-.03	-.36	
			50.8	.02	.42	-.03	-.71	
106								
	1	-.21						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.29	.04	.48	
			50.8	-.02	-.58	.04	.93	
	2	.10						.00
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4			25.4 -.02		-.01
.04		.02						
			38.2	-.02	-.29	.04	.48	
			50.8	-.02	-.57	.04	.94	
107								
	1	-.21						-.01
			.0	.02	-.55	-.04	.90	
			12.7	.02	-.27	-.04	.43	
			25.4	.02	-.01	-.04	.02	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.2	.02	.27	-.04	-.44	
			50.9	.02	.55	-.04	-.90	
	2	-.11						-.00
			.0	.02	-.57	-.04	.94	
			12.7	.02	-.29	-.04	.48	
			25.4	.02	-.01	-.04	.03	
			38.2	.02	.26	-.04	-.43	
			50.9	.02	.54	-.04	-.88	
108	----------							
	1	-.37						.02
			.0	-.02	.42	.03	-.71	
			12.7	-.02	.21	.03	-.36	
			25.4	-.02	.01	.03	-.01	
			38.2	-.02	-.21	.03	.33	
			50.9	-.02	-.40	.03	.68	
	2	-.41						.02
			.0	-.02	.40	.03	-.68	
			12.7	-.02	.20	.03	-.35	
			25.4	-.02	.01	.03	-.02	
			38.2	-.02	-.18	.03	.31	
			50.9	-.02	-.38	.03	.64	
109	----------							
	1	-.37						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.42	-.03	-.71	
	2	-.38						-.02
			.0	.02	-.38	-.03	.64	
			12.7	.02	-.18	-.03	.31	
			25.4	.02	.01	-.03	-.03	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.41	-.03	-.69	
110	----------							
	1	-.21						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.29	.04	.48	
			50.9	-.02	-.56	.04	.93	
	2	-.37						.00
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.43	
			25.4			25.4 -.02		-.01
.04		.03						
			38.2	-.02	-.30	.04	.50	
			50.9	-.02	-.58	.04	.96	
111	----------							
	1	-.21						-.01
			.0	.02	-.56	-.04	.93	
			12.7	.02	-.29	-.04	.48	
			25.4	.02	-.01	-.04	.02	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.2	.02	.27	-.04	-.44	
			50.9	.02	.56	-.04	-.90	
	2	-.61						-.00
			.0	.02	-.58	-.04	.96	
			12.7	.02	-.30	-.04	.50	
			25.4	.02	-.01	-.04	.03	
			38.2	.02	.27	-.04	-.44	
			50.9	.02	.56	-.04	-.91	
112	----------							
	1	-.37						.02
			.0	-.02	.42	.03	-.71	
			12.7	-.02	.21	.03	-.36	
			25.4	-.02	.01	.03	-.01	
			38.2	-.02	-.20	.03	.33	
			50.9	-.02	-.40	.03	.68	
	2	-.86						.02
			.0	-.02	.42	.03	-.71	
			12.7	-.02	.22	.03	-.37	
			25.4	-.02	.01	.03	-.02	
			38.2	-.02	-.19	.03	.32	
			50.9	-.02	-.39	.03	.66	
113	----------							
	1	-.37						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.42	-.03	-.71	
	2	-.93						-.02
			.0	.02	-.39	-.03	.66	
			12.7	.02	-.19	-.03	.32	
			25.4	.02	.01	-.03	-.02	
			38.2	.02	.21	-.03	-.36	
			50.9	.02	.41	-.03	-.70	
114	----------							
	1	-.21						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.29	.04	.48	
			50.9	-.02	-.56	.04	.93	
	2	-.79						.00
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.27	.04	-.44	
			25.4	-.02	-.01	.04	.03	
			38.2	-.02	-.29	.04	.49	
			50.9	-.02	-.57	.04	.95	
115	----------							
	1	-.21						-.01
			.0	.02	-.56	-.04	.93	
			12.7	.02	-.29	-.04	.48	
			25.4	.02	-.01	-.04	.02	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.2	.02	.37	-.04	-.44	
			50.8	.02	.56	-.04	-.90	
	2	-.80						-.01
			.0	.02	-.56	-.04	.95	
			12.7	.02	-.39	-.04	.48	
			25.4	.02	-.21	-.04	.02	
			38.2	.02	-.05	-.04	-.45	
			50.8	.02	.13	-.04	-.92	
116								
	1	-.87						.02
			.0	-.02	.42	.03	-.71	
			12.7	-.02	.24	.03	-.38	
			25.4	-.02	.06	.03	-.01	
			38.2	-.02	-.09	.03	.33	
			50.8	-.02	-.27	.03	.68	
	2	-.88						.02
			.0	-.02	.43	.03	-.73	
			12.7	-.02	.25	.03	-.37	
			25.4	-.01	.07	.03	-.01	
			38.2	-.02	-.10	.03	.34	
			50.8	-.02	-.27	.03	.70	
117								
	1	-.87						-.02
			.0	.02	-.40	-.03	.68	
			12.7	.02	-.20	-.03	.33	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.21	-.03	-.36	
			50.8	.02	.40	-.03	-.71	
	2	-.92						-.02
			.0	.02	-.41	-.03	.70	
			12.7	.02	-.20	-.03	.34	
			25.4	.02	.01	-.03	-.01	
			38.2	.02	.22	-.03	-.36	
			50.8	.02	.41	-.02	-.72	
118								
	1	-.21						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.37	.04	-.44	
			25.4	-.02	-.01	.04	.02	
			38.2	-.02	-.39	.04	.48	
			50.8	-.02	-.58	.04	.93	
	2	-.85						.01
			.0	-.02	.55	.04	-.90	
			12.7	-.02	.37	.04	-.44	
			25.4	-.02	-.01	.04	.01	
			38.2	-.02	-.39	.04	.47	
			50.8	-.02	-.58	.04	.93	
119								
	1	-.21						-.01
			.0	.02	-.58	-.04	.93	
			12.7	.02	-.38	-.04	.47	
			25.4	.02	-.17	.04	.02	

UBAH3 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.5	.02	.57	-.04	-.44	
			50.9	.02	.88	-.04	-.80	
	2	-.36						-.11
			.0	.02	-.88	-.04	.98	
			12.7	.02	-.61	-.04	.45	
			25.4	.02	-.34	-.04	.02	
			38.1	.02	-.07	-.04	-.43	
			50.8	.02	.24	-.04	-.88	
111								
	1	-.07						.02
			.0	-.02	.41	.03	-.71	
			12.7	-.02	.11	.03	-.36	
			25.4	-.02	-.19	.03	-.01	
			38.1	-.02	-.49	.03	.33	
			50.8	-.02	-.41	.03	.68	
	2	-.47						.02
			.0	-.02	.41	.03	-.69	
			12.7	-.02	.11	.03	-.35	
			25.4	-.02	-.01	.03	-.01	
			38.1	-.02	-.19	.03	.32	
			50.9	-.02	-.38	.03	.66	
121								
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	.16						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
122								
	1	.09						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
	2	.28						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.78	
123								
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	.38						-.15
			.0	.03	-.65	-.07	1.78	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
124	----------							
	1	.09						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
	2	.38						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
125	----------							
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	.28						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
126	----------							
	1	.09						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
	2	.14						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
127	----------							
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.93	
			25.8	.03	.00	-.07	.07	

UBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	.03						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.33	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
128	----------							
	1	.09						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.33	
			51.6	-.03	-.65	.07	1.79	
	2	-.11						.15
			.0	-.03	.65	.07	-1.64	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.33	
			51.6	-.03	-.65	.07	1.78	
129	----------							
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.33	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	-.18						-.15
			.0	.03	-.65	-.07	1.78	
			12.9	.03	-.33	-.07	.33	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.32	-.07	-.78	
			51.6	.03	.65	-.07	-1.64	
130	----------							
	1	.09						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.33	
			51.6	-.03	-.65	.07	1.79	
	2	-.18						.15
			.0	-.03	.65	.07	-1.64	
			12.9	-.03	.32	.07	-.78	
			25.8			25.8	-.03	.00
.07		.07						
			38.7	-.03	-.32	.07	.32	
			51.6	-.03	-.65	.07	1.78	
131	----------							
	1	.09						-.15
			.0	.03	-.65	-.07	1.79	
			12.9	.03	-.33	-.07	.33	
			25.8	.03	.00	-.07	.07	

JEAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.65	
	2	-.11						-.15
			.0	.03	-.65	-.07	1.78	
			12.9	.03	-.32	-.07	.92	
			25.8	.03	.00	-.07	.07	
			38.7	.03	.33	-.07	-.79	
			51.6	.03	.65	-.07	-1.64	
132								
	1	.39						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.32	.07	-.79	
			25.8	-.03	.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
	2	.12						.15
			.0	-.03	.65	.07	-1.65	
			12.9	-.03	.33	.07	-.79	
			25.8	-.03	-.00	.07	.07	
			38.7	-.03	-.33	.07	.93	
			51.6	-.03	-.65	.07	1.79	
133								
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.71						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
135								
	1	-2.18						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.84						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
137								
	1	1.10						.00
			.0	.00	.00	.00	.00	
			21.8	.00	.00	.00	.00	
			57.3	.00	.00	.00	.00	

BAH3 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	8.43						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
139	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	4.00						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
141	----------							
	1	1.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.04						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
143	----------							
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.41						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6			57.6	.00	.00
.00			.0					
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
145	----------							
	1	1.48						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.20						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
147	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.84						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
149	----------							
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-4.41						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
151	----------							
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.94						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
153	----------							
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

UBAH3 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	2.20						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
155	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.00						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
157	----------							
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-5.35						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
159	----------							
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-4.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
161	----------							
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.61						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
163								
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.55						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	-.00	.00	.00	
165								
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.23						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
167								
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.41						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
169								
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	.68						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
171	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.13						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
173	----------							
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.60						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
175	----------							
	1	-2.03						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.85						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6			57.6	.00	.00
.00		.00						
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
177	----------							
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.98						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
179	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	.28						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
134	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.85						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
136	----------							
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	2.36						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6			57.6	.00	.00
.00		.00						
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
138	----------							
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

UBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.76						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
140								
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-5.17						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
142								
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.01						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
144								
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	.20						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
146								
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.84						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
148	----------							
	1	-2.81						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	.17						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
150	----------							
	1	.74						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	3.42						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
152	----------							
	1	1.46						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	2.21						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6			57.6	.00	.00
.00		.00						
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
154	----------							
	1	-2.08						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.90						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
156	----------							
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.78						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
158	----------							
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	2.93						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
160	----------							
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	3.94						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
162	----------							
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

BAH1 - UNITS Kip-In

RAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.62						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
164								
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.88						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
166								
	1	.74						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	.16						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
168								
	1	1.46						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	1.93						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
170								
	1	-2.08						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-1.56						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
172								
	1	-2.91						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.16						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
174								
	1	.74						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.81						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
176								
	1	1.48						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-.84						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6			57.6	.00	.00
.00		.00						
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
78								
	1	-2.38						
								.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-3.45						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
180	----------							
	1	-2.81						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
	2	-2.87						.00
			.0	.00	.00	.00	.00	
			28.8	.00	.00	.00	.00	
			57.6	.00	.00	.00	.00	
			86.4	.00	.00	.00	.00	
			115.2	.00	.00	.00	.00	
181	----------							
	1	-.65						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	-.48						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
183	----------							
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	.39						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		.00						
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
185	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	

UBAH2 - UNITS Kip-In

FRAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	-.60						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
187								
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-2.10						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
189								
	1	-.65						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	-1.91						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
191								
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-.71						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
193								
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	.00	

F R A M E   E L E M E N T   F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	-.04						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
195								
	1	-1.22						
			.0	.00	.00	.00	-.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-.02						
			.0	.00	.00	.00	-.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
197								
	1	-.65						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	.83						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
199								
	1	.14						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	1.11						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0					
.00		[illegible]			56.0	.00		.00
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
01								
	1	-.42						
			[illegible]	.00	.00	.00	.00	.00
			[illegible]	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	-.15						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
203	----------							
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-.84						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
205	----------							
	1	-.65						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	.45						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
207	----------							
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	1.57						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		.00						
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
209	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORS
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	.48						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
211								
	1	-1.22						
			.0	.00	.00	.00	-.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-1.22						
			.0	.00	.00	.00	-.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
213								
	1	-.65						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	-1.01						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
215								
	1	.14						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	.05						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
17								
	1	-.42						
			.0	.00	.00	.00	.00	.00
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	-.81						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
219								
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-1.89						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
221								
	1	-.86						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
	2	-1.32						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.01	
223								
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-.87						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00			.0					
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
225								
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	

BEAM2 - UNITS Kip-In

L A M E E L E M E N T F O R C E S

ELT ID	LOAD ID	AXIAL FORCE	DIST END I	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	COMB		84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
	2	-1.35						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	-.00	.00	-.00	
			84.1	.00	-.00	.00	-.00	
			112.1	.00	-.00	.00	-.00	
227								
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
	2	-1.68						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	.00	.00	.00	
182								
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-1.19						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
184								
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
	2	.26						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		-.00						
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
186								
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	1.58						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	-.00	.00	.00	
			112.1	.00	-.00	.00	.00	
188	----------							
	1	-.65						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
	2	1.00						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
190	----------							
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-.18						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
192	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
	2	-.48						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		-.00						
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
194	----------							
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-.76						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
196								
	1	-.85						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
	2	-1.66						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
198								
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-1.73						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
200								
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
	2	-.57						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		-.00						
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
202								
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-.35						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
204	----------							
	1	-.65						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
	2	-1.84						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
206	----------							
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-2.67						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
208	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
	2	-1.22						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.0	.00	.00
.00		-.00						
			84.1	.00	-.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
110	----------							
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00			
			112.1	.00	-.00			
	2	.08						
			.0	.00	.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	-.00			
			112.1	.00	-.00			
212								
	1	-.85						
			.0	.00	-.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	.00			
			112.1	.00	.00			
	2	-.72						
			.0	.00	-.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	.00			
			112.1	.00	.00			
214								
	1	-1.22						
			.0	.00	.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	.00			
			112.1	.00	-.00			
	2	-1.71						
			.0	.00	.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	.00			
			112.1	.00	-.00			
216								
	1	-.42						
			.0	.00	.00			
			28.0	.00	.00			
			56.0	.00	.00			
			84.1	.00	.00			
			112.1	.00	.00			
	2	-1.00						
			.0	.00	.00			
			28.0	.00	.00			
			56.0			56.0	.00	
.00		-.00						
			84.1	.00	.00			
			112.1	.00	.00			
218								
	1	.14						
			.0	.00	.00			
			28.0	.00	.00			
			56.0	.00	.00			

BAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	.01						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	-.00	.00	.00	
			112.1	.00	-.00	.00	.00	
220	----------							
	1	-.65						.00
			.0	.01	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.01	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
	2	-.21						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
222	----------							
	1	-1.22						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	-.48						.00
			.0	.00	.00	.00	-.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
224	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
	2	.12						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0			56.1	.00	.00
.00		-.00						
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.00	
226	----------							
	1	.14						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
	2	.23						.00
			.0	.00	.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	.00	
			84.1	.00	.00	.00	.00	
			112.1	.00	-.00	.00	.00	
228								
	1	-.68						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
	2	-.77						.00
			.0	.00	-.00	.00	.00	
			28.0	.00	.00	.00	.00	
			56.0	.00	.00	.00	-.00	
			84.1	.00	.00	.00	-.00	
			112.1	.00	.00	.00	-.01	
229								
	1	-.51						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	-.38						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
231								
	1	-.48						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	-.13						.00
			.0	.00	-.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		-.00						
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
233								
	1	-.24						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

UBAH3 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	.37						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
235	----------							
	1	-.28						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
	2	.52						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
237	----------							
	1	-.51						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	.18						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
239	----------							
	1	-.42						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	-.16						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		-.00						
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
241	----------							
	1	-.24						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.85						-.00
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
243	----------							
	1	-.26						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.82						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
245	----------							
	1	-.51						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	-.88						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
247	----------							
	1	-.48						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	-.81						.00
			.0	.00	-.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
249	----------							
	1	-.24						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.73						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
251	----------							
	1	-.26						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
	2	-1.14						.00
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.01	
253	----------							
	1	-.51						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	-1.79						.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
255	----------							
	1	-.48						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	-1.40						.00
			.0	.00	-.00	.00	.01	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		-.01						
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.02	
257	----------							
	1	-.24						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.71						
			.0	.00	.00	.00	-.00	-.01
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
259								
	1	-.38						
			.0	.00	.01	.00	.00	.00
			27.1	.00	.01	.00	.00	
			54.3	.00	.01	.00	.00	
			81.4	.00	-.01	.00	.00	
			108.5	.00	-.01	.00	.00	
	2	-.47						
			.0	.00	.01	.00	-.00	.00
			27.1	.00	.01	.00	.00	
			54.3	.00	-.01	.00	.00	
			81.4	.00	-.01	.00	.00	
			108.5	.00	-.01	.00	.01	
261								
	1	-.51						
			.0	.00	.00	.00	-.01	-.00
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	-.73						
			.0	.00	.00	.00	-.01	.00
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
263								
	1	-.48						
			.0	.00	.00	.00	.00	.00
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	-.77						
			.0	.00	-.00	.00	.00	.00
			27.1	.00	.00	.00	.00	
			54.3					
.00		-.00				54.3	.00	.00
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
65								
	1	-.24						
			.0	.00	.00	.00	-.00	-.01
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.42						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
267								
	1	-.28						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
	2	-.17						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
269								
	1	-.51						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
	2	-.12						-.00
			.0	.00	.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	.01	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.01	.00	.02	
271								
	1	-.48						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	-.00	
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
	2	.16						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		-.00						
			81.4	.00	.00	.00	-.01	
			108.5	.00	.00	.00	-.01	
273								
	1	-.24						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	

BAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
	2	-.19						-.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.01	
			108.5	.00	-.00	.00	.01	
275	----------							
	1	-.26						.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
	2	-.21						.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	-.00	.00	.00	
			108.5	.00	-.00	.00	.00	
230	----------							
	1	-.26						-.01
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
	2	-.38						-.00
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
232	----------							
	1	-.24						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
	2	-.41						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		.00						
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
234	----------							
	1	-.48						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	

JBAH2 - UNITS Kip-In

R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
	2	-.83						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
236	----------							
	1	-.51						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.01	.02	
	2	-1.01						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.01	.02	
238	----------							
	1	-.26						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
	2	-.68						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
240	----------							
	1	-.24						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
	2	-.29						.00
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.00	.00
.00		.00						
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.01	.01	
242	----------							
	1	-.48						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT	LOAD ID	COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
				81.4	.00	-.00	.00	-.01	
				108.5	.00	-.00	.00	-.01	
		2	-.05						
									-.00
				.0	.00	.00	.00	.00	
				27.1	.00	.00	.00	.00	
				54.3	.00	-.00	.00	-.00	
				81.4	.00	-.00	.00	-.01	
				108.5	.00	-.00	.00	-.01	
244	----------								
		1	-.51						
									.00
				.0	.00	-.00	.00	-.01	
				27.1	.00	.00	.00	.00	
				54.3	.00	.00	.00	.01	
				81.4	.00	.00	.00	.01	
				108.5	.00	.01	.00	.02	
		2	.16						
									.00
				.0	.00	-.00	.00	-.01	
				27.1	.00	.00	.00	.00	
				54.3	.00	.00	.00	.00	
				81.4	.00	.00	.00	.01	
				108.5	.00	.01	.00	.02	
246	----------								
		1	-.26						
									-.00
				.0	.00	.00	.00	.00	
				27.1	.00	.00	.00	.00	
				54.3	.00	.00	.00	.00	
				81.4	.00	.00	.00	.00	
				108.5	.00	.00	.00	.00	
		2	.37						
									-.00
				.0	.00	.00	.00	-.00	
				27.1	.00	.00	.00	.00	
				54.3	.00	.00	.00	.00	
				81.4	.00	.00	.00	.00	
				108.5	.00	.00	.00	.00	
248	----------								
		1	-.24						
									.01
				.0	.00	-.00	.00	-.00	
				27.1	.00	.00	.00	.00	
				54.3	.00	.00	.00	.00	
				81.4	.00	.00	.00	.01	
				108.5	.00	.00	.00	.01	
		2	.37						
									.01
				.0	.00	-.00	.00	-.00	
				27.1	.00	.00	.00	.00	
				54.3			54.3	.00	.00
	.00		.36						
				81.4	.00	.00	.00	.01	
				108.5	.00	.00	.00	.01	
250	----------								
		1	-.48						
									-.00
				.0	.00	.00	.00	.00	
				27.1	.00	.00	.00	.00	
				54.3	.00	-.00	.00	-.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
	2	.17						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
252	----------							
	1	-.51						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.00	.02	
	2	.67						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.00	.02	
254	----------							
	1	-.26						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
	2	.70						-.00
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.01	
256	----------							
	1	-.24						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
	2	.51						.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
258	----------							
	1	-.48						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	

JBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL FORCE
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.11	
	2	-.13						-.00
			.0	.00	.00	.00	.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.01	
			81.4	.00	-.00	.00	-.11	
			108.5	.00	-.00	.00	-.10	
260								
	1	-.51						-.01
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.11	
			108.5	.00	.01	.00	.10	
	2	-.51						-.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.11	
			108.5	.00	.01	.00	.10	
262								
	1	-.26						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
	2	-.36						-.00
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.01	
264								
	1	-.24						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
	2	-.30						.01
			.0	.00	.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3	.01	
.00		.00						.01
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
266								
	1	-.48						
			.0	.00	.00	.00	.01	
			27.1	.00	.00	.00	.01	
			54.3	.00	-.00	.00	-.00	

UBAH3 - UNITS Kip-In

FRAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
	2	-.61						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	
			81.4	.00	-.00	.00	-.01	
268			108.5	.00	-.00	.00	-.01	
	1	-.51						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.00	.02	
	2	-.89						.00
			.0	.00	-.00	.00	-.01	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
270			108.5	.00	.01	.00	.02	
	1	-.26						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
			108.5	.00	.00	.00	.00	
	2	-1.01						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.00	
272			108.5	.00	.00	.00	.00	
	1	-.24						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.00	
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
	2	-.57						.01
			.0	.00	-.00	.00	-.00	
			27.1	.00	.00	.00	.00	
			54.3			54.3		
.00		.00				.00		.00
			81.4	.00	.00	.00	.01	
			108.5	.00	.00	.00	.01	
274								
	1	-.48						-.00
			.0	.00	.00	.00	.00	
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	

F R A M E   E L E M E N T   F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
	2	-.84						
			.0	.00	.00	.00	.00	-.00
			27.1	.00	.00	.00	.00	
			54.3	.00	-.00	.00	-.00	
			81.4	.00	-.00	.00	-.01	
			108.5	.00	-.00	.00	-.01	
276								
	1	-.51						
			.0	.00	-.00	.00	-.01	.00
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.00	.02	
	2	-.57						
			.0	.00	-.00	.00	-.01	.01
			27.1	.00	.00	.00	.00	
			54.3	.00	.00	.00	.01	
			81.4	.00	.00	.00	.01	
			108.5	.00	.01	.00	.02	
277								
	1	-.08						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
	2	-.30						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.07	
279								
	1	-.44						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
	2	-.81						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4					
-.00		-.01			52.4	.00		-.00
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
[illegible]								
	1	-.18						
			.0	.00	-.02	.00	-.13	.01
			26.2	.00	-.01	.00	-.06	
			52.4	.00	.00	.00	-.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.01	.00	.08	
			104.9	.00	.02	.00	.12	
	2	.02						
			.0	.00	-.02	.00	-.12	.01
			26.2	.00	-.01	.00	-.08	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.08	
			104.9	.00	.02	.00	.12	
291								
	1	-.49						
			.0	.00	.02	-.00	.11	-.01
			26.2	.00	.01	-.00	.08	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.08	
			104.9	.00	-.02	-.00	-.14	
	2	-.25						
			.0	.00	.02	-.00	.11	-.00
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.01	-.00	-.08	
			104.9	.00	-.02	-.00	-.14	
293								
	1	-.08						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
	2	.19						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
295								
	1	-.44						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
	2	-.12						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4					
-.00		-.01			52.4	.00		-.00
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
97								
	1	-.08						
			.0	.00	-.02	.00	-.12	.01
			26.2	.00	-.01	.00	-.08	
			52.4	.00	.00	.00	-.00	

BAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.12	
	2	-.22						
								.01
			.0	.00	-.00	.00	-.13	
			26.2	.00	-.01	.00	-.06	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.12	
283								
	1	-.46						
								-.01
			.0	.00	.02	-.00	.11	
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.06	
			104.9	.00	-.02	-.00	-.14	
	2	-.68						
								-.01
			.0	.00	.02	-.00	.11	
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.06	
			104.9	.00	-.02	-.00	-.14	
285								
	1	-.22						
								.00
			.0	.00	-.01	.00	-.00	
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
	2	-.26						
								.00
			.0	.00	-.01	.00	-.08	
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
287								
	1	-.44						
								.00
			.0	.00	.02	-.00	.12	
			26.2	.00	.01	-.00	.06	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
	2	-.46						
								.00
			.0	.00	.02	-.00	.12	
			26.2	.00	.01	-.00	.06	
			52.4			52.4	.00	-.00
	-.00	-.11						
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
289								
	1	-.10						
								.01
			.0	.00	-.02	.00	-.13	
			26.2	.00	-.01	.00	-.08	
			52.4	.00	.00	.00	-.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.12	
	2	.28						.01
			.0	.00	-.02	.00	-.13	
			26.2	.00	-.01	.00	-.07	
			52.4	.00	.00	.00	.00	
			78.7	.00	.01	.00	.06	
299			104.9	.00	.02	.00	.13	
	1	-.43						
			.0	.00	.02	-.00	.11	-.01
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.08	
			104.9	.00	-.02	-.00	-.14	
	2	-.14						
			.0	.00	.02	-.00	.11	-.01
			26.2	.00	.01	-.00	.04	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.08	
301			104.9	.00	-.02	-.00	-.14	
	1	-.08						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
	2	-.18						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.03	
303			104.9	.00	.01	.00	.07	
	1	-.44						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
	2	-.16						
			.0	.00	.02	-.00	.12	.01
			26.2	.00	.01	-.00	.06	
			52.4					
-.00		-.1[illegible]				52.4	.00	-.00
			78.7	.00	-.02	-.00	-.06	
			104.9	.00	-.03	-.00	-.13	
305								
	1	-.08						
			.0	.00	-.02	.00	-.13	.01
			26.2	.00	-.01	.00	-.06	
			52.4	.00	.00	.00	-.00	

BAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.12	
	2	.24						
			.0	.00	-.02	.00	-.13	.01
			26.2	.00	-.01	.00	-.07	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.13	
307								
	1	-.49						
			.0	.00	.02	-.00	.11	-.01
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.08	
			104.9	.00	-.02	-.00	-.14	
	2	-.36						
			.0	.00	.02	-.00	.11	-.01
			26.2	.00	.01	-.00	.05	
			52.4	.00	-.00	-.00	-.02	
			78.7	.00	-.01	-.00	-.08	
			104.9	.00	-.02	-.00	-.15	
309								
	1	-.08						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.08	
	2	-.05						
			.0	.00	-.01	.00	-.08	.00
			26.2	.00	-.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	.01	.00	.04	
			104.9	.00	.01	.00	.07	
311								
	1	-.44						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4	.00	-.00	-.00	-.01	
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
	2	-.50						
			.0	.00	.02	-.00	.12	.00
			26.2	.00	.01	-.00	.06	
			52.4					
-.00		-.00				52.4	.00	-.00
			78.7	.00	-.02	-.00	-.07	
			104.9	.00	-.03	-.00	-.13	
313								
	1	-.06						
			.0	.00	-.02	.00	-.13	.01
			26.2	.00	-.01	.00	-.06	
			52.4	.00	.00	.00	-.00	

R A M E E L E M E N T F O R C E S

ELT	LOAD ID	COMB	AXIAL FORCE	DIST END	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
				78.7	.00	.01	.00	.06	
				104.9	.00	.02	.00	.12	
		2	-.12						
				.0	.00	-.02	.00	-.12	.01
				26.2	.00	-.01	.00	-.07	
				52.4	.00	.00	.00	-.00	
				78.7	.00	.01	.00	.06	
				104.9	.00	.02	.00	.12	
315									
		1	-.49						
				.0	.00	.02	-.00	.11	-.01
				26.2	.00	.01	-.00	.05	
				52.4	.00	-.00	-.00	-.02	
				78.7	.00	-.01	-.00	-.08	
				104.9	.00	-.02	-.00	-.14	
		2	-.68						
				.0	.00	.02	-.00	.11	-.01
				26.2	.00	.01	-.00	.05	
				52.4	.00	-.00	-.00	-.02	
				78.7	.00	-.01	-.00	-.08	
				104.9	.00	-.02	-.00	-.14	
317									
		1	-.08						
				.0	.00	-.01	.00	-.08	.00
				26.2	.00	-.01	.00	-.04	
				52.4	.00	.00	.00	-.00	
				78.7	.00	.01	.00	.04	
				104.9	.00	.01	.00	.08	
		2	-.30						
				.0	.00	-.01	.00	-.09	.00
				26.2	.00	-.01	.00	-.04	
				52.4	.00	.00	.00	-.00	
				78.7	.00	.01	.00	.04	
				104.9	.00	.02	.00	.09	
319									
		1	-.44						
				.0	.00	.02	-.00	.12	.00
				26.2	.00	.01	-.00	.08	
				52.4	.00	-.00	-.00	.04	
				78.7	.00	-.02	-.00	-.04	
				104.9	.00	-.03	-.00	-.13	
		2	-.80						
				.0	.00	.02	-.00	.12	.00
				26.2	.00	.01	-.00	.08	
				52.4					
-.00			-.01				52.4	.00	-.00
				78.7	.00	-.02	-.00	-.04	
				104.9	.00	-.03	-.00	-.13	
321									
		1	-.06						
				.0	.00	-.02	.00	-.13	.01
				26.2	.00	-.01	.00	-.08	
				52.4	.00	.00	.00	-.04	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.01	.00	.06	
			104.9	.00	.02	.00	.12	
	2	-.82						
			.0	.00	-.02			.01
			26.2	.00	-.01	.00	-.13	
			52.4	.00	.00	.00	-.06	
			78.7	.00	.01	.00	-.00	
			104.9	.00	.02	.00	.06	
328							.13	
	1	-.49						
			.0	.00	.02			-.01
			26.2	.00	.01	-.00	.11	
			52.4	.00	-.00	-.00	.05	
			78.7	.00	-.01	-.00	-.02	
			104.9	.00	-.02	-.00	-.08	
	2	-.72				-.00	-.14	
			.0	.00	.02			-.01
			26.2	.00	.01	-.00	.11	
			52.4	.00	-.00	-.00	.05	
			78.7	.00	-.01	-.00	-.02	
			104.9	.00	-.02	-.00	-.08	
278						-.00	-.14	
	1	-.49						
			.0	.00	-.02			.01
			26.2	.00	-.01	-.00	.11	
			52.4	.00	.00	-.00	.05	
			78.7	.00	.01	-.00	-.02	
			104.9	.00	.02	-.00	-.08	
	2	-.26				-.00	-.14	
			.0	.00	-.02			.01
			26.2	.00	-.01	-.00	.11	
			52.4	.00	.00	-.00	.05	
			78.7	.00	.01	-.00	-.02	
			104.9	.00	.02	-.00	-.08	
280						-.00	-.14	
	1	-.06						
			.0	.00	.02			-.01
			26.2	.00	.01	.00	-.13	
			52.4	.00	-.00	.00	-.06	
			78.7	.00	-.01	.00	-.00	
			104.9	.00	-.02	.00	.06	
	2	.22				.00	.12	
			.0	.00	.02			-.01
			26.2	.00	.01	.00	-.13	
			52.4			.00	-.06	
.00		-.00				52.4	.00	-.10
			78.7	.00	-.01			
			104.9	.00	-.02	.00	.06	
282						.00	.13	
	1	-.44						
			.0	.00	-.01			-.00
			26.2	.01	-.01	-.00	.12	
			52.4	.00	.00	-.00	.06	
						-.00	-.01	

F R A M E E L E M E N T F O R C E S

ELT	LOAD ID	COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
				78.7	.00	.02	-.00	-.07	
				104.9	.00	.03	-.00	-.13	
		2	-.10						
				.0	.00	-.02	-.00		-.00
				26.2	.00	-.01	-.00	.12	
				52.4	.00	.00	-.00	.06	
				78.7	.00	.02	-.00	-.01	
				104.9	.00	.03	-.00	-.07	
284								-.13	
		1	-.08						
				.0	.00	.01	.00	-.08	-.00
				26.2	.00	.01	.00	-.04	
				52.4	.00	.00	.00	-.00	
				78.7	.00	-.01	.00	.04	
				104.9	.00	-.01	.00	.08	
		2	.22						
				.0	.00	.01	.00	-.08	-.00
				26.2	.00	.01	.00	-.04	
				52.4	.00	.00	.00	-.00	
				78.7	.00	-.01	.00	.04	
				104.9	.00	-.01	.00	.08	
286									
		1	-.49						
				.0	.00	-.02	-.00		.01
				26.2	.00	-.01	-.00	.11	
				52.4	.00	.00	-.00	.05	
				78.7	.00	.01	-.00	-.02	
				104.9	.00	.02	-.00	-.08	
		2	-.25					-.14	
				.0	.00	-.02	-.00		.00
				26.2	.00	-.01	-.00	.11	
				52.4	.00	.00	-.00	.05	
				78.7	.00	.01	-.00	-.01	
				104.9	.00	.02	-.00	-.08	
288								-.14	
		1	-.06						
				.0	.00	.02	.00		-.01
				26.2	.00	.01	.00	-.13	
				52.4	.00	-.00	.00	-.06	
				78.7	.00	-.01	.00	-.00	
				104.9	.00	-.02	.00	.06	
		2	.00					.12	
				.0	.00	.02	.00		-.01
				26.2	.00	.01	.00	-.12	
				52.4			.00	-.06	
	.00		-.00			52.4	.00		.00
				78.7	.00	-.01	.00	.06	
				104.9	.00	-.02	.00	.12	
290									
		1	-.44						
				.0	.00	-.02	-.00		-.00
				26.2	.00	-.01	-.00	.12	
				52.4	.00	.00	-.00	.06	
								-.01	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIA TOR
			78.7	.00	.02	-.00	-.07	
			104.9	.00	.03	-.00	-.13	
	2	-.46						
			.0	.00	-.02	-.00	.12	-.01
			26.2	.00	-.01	-.00	.08	
			52.4	.00	.00	-.00	-.01	
			78.7	.00	.02	-.00	-.07	
292			104.9	.00	.03	-.00	-.13	
	1	-.08						
			.0	.00	.01	.00	-.06	-.00
			26.2	.00	.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	-.01	.00	.04	
			104.9	.00	-.01	.00	.08	
	2	-.22						
			.0	.00	.01	.00	-.06	-.00
			26.2	.00	.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	-.01	.00	.04	
294			104.9	.00	-.01	.00	.08	
	1	-.49						
			.0	.00	-.02	-.00	.11	.01
			26.2	.00	-.01	-.00	.05	
			52.4	.00	.00	-.00	-.02	
			78.7	.00	.01	-.00	-.08	
			104.9	.00	.02	-.00	-.14	
	2	-.67						
			.0	.00	-.02	-.00	.11	.01
			26.2	.00	-.01	-.00	.05	
			52.4	.00	.00	-.00	-.02	
			78.7	.00	.01	-.00	-.08	
296			104.9	.00	.02	-.00	-.14	
	1	-.06						
			.0	.00	.02	.00	-.13	-.01
			26.2	.00	.01	.00	-.06	
			52.4	.00	-.00	.00	-.00	
			78.7	.00	-.01	.00	.06	
			104.9	.00	-.02	.00	.12	
	2	-.34						
			.0	.00	.02	.00	-.13	-.01
			26.2	.00	.01	.00	-.07	
			52.4	.00	.00	.00	-.00	
			78.7	.00	-.01	.00	.06	
			104.9	.00	-.02	.00	.13	
98								
	1	-.44						
			.0	.00	-.02	-.00	.12	-.00
			26.2	.00	-.01	-.00	.08	
			52.4	.00	.00	-.00	-.01	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TOR
			78.7	.00	.02	-.00	-.07	
			104.9	.00	.06	-.00	-.18	
	2	-.71						-.01
			.0	.00	-.02	-.00		
			26.2	.00	-.01	-.00	.12	
			52.4	.00	.00	-.00	.08	
			78.7	.00	.02	-.00	-.00	
300			104.9	.00	.06	-.00	-.08	
	1	-.68					-.12	
			.0	.00	.01	.00	-.06	-.01
			26.2	.00	.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	-.01	.00	.04	
			104.9	.00	-.01	.00	.09	
	2	-.54						-.0
			.0	.00	.01	.00	-.06	
			26.2	.00	.01	.00	-.04	
			52.4	.00	.00	.00	-.00	
			78.7	.00	-.01	.00	.03	
302			104.9	.00	-.01	.00	.07	
	1	-.49						
			.0	.00	-.02	-.00		.01
			26.2	.00	-.01	-.00	.11	
			52.4	.00	.00	-.00	.05	
			78.7	.00	.01	-.00	-.02	
			104.9	.00	.02	-.00	-.08	
	2	-.85					-.14	
			.0	.00	-.02	-.00		.01
			26.2	.00	-.01	-.00	.11	
			52.4	.00	.00	-.00	.05	
			78.7	.00	.01	-.00	-.02	
304			104.9	.00	.02	-.00	-.08	
	1	-.06					-.18	
			.0	.00	.02	.00		-.01
			26.2	.00	.01	.00	-.18	
			52.4	.00	-.00	.00	-.08	
			78.7	.00	-.01	.00	-.00	
			104.9	.00	-.02	.00	.06	
	2	-.44					.12	
			.0	.00	.02	.00		-.01
			26.2	.00	.01	.00	-.18	
			52.4	.00	-.00	.00	-.07	
			78.7	.00	-.01	.00	-.00	
			104.9	.00	-.02	.00	.06	
306							.18	
	1	-.44						
			.0	.00				
			26.2	.00				
			52.4	.00				

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST FROM I	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			0					
			26.3	.00	-.02	-.00	.11	-.01
			52.4	.00	-.01	-.00	.05	
			78.7	.00	.00	-.00	-.02	
			104.9	.00	.01	-.00	-.08	
	2	-.66		.00	.02	-.00	-.14	
			0					
			26.3	.00	-.02	-.00	.11	.01
			52.4	.00	-.01	-.00	.05	
			78.7	.00	.00	-.00	-.02	
312			104.9	.00	.01	-.00	-.08	
	1	-.06			.02	-.00	-.15	
			0					
			26.3	.00	.02	.00	-.13	-.01
			52.4	.00	.01	.00	-.06	
			78.7	.00	-.00	.00	-.00	
			104.9	.00	-.01	.00	.06	
	2	-.15		.00	-.02	.00	.12	
			0					
			26.3	.00	.02	.00	-.13	-.01
			52.4	.00	.01	.00	-.07	
			78.7	.00	-.00	.00	-.00	
14			104.9	.00	-.01	.00	.06	
	1	-.44		.00	-.02	.00	.13	
			0					
			26.3	.00	-.02	-.00	.12	-.00
			52.4	.00	-.01	-.00	.08	
				.00	.00	-.00	-.01	

F R A M E E L E M E N T F O R C E S

ELT	LOAD ID	COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIA TOR
				78.7	.00	.02	-.00	-.07	
				104.9	.00	.03	-.00	-.13	
		2	-.48						
				.0	.00	-.02			-.0
				26.2	.00	-.01	-.00	.12	
				52.4	.00	.00	-.00	.06	
				78.7	.00	.02	-.00	-.01	
				104.9	.00	.03	-.00	-.07	
316							-.00	-.14	
		1	-.08						
				.0	.00	.01			-.00
				26.2	.00	.01	.00	-.08	
				52.4	.00	.00	.00	-.04	
				78.7	.00	-.01	.00	-.00	
				104.9	.00	-.01	.00	.04	
		2	.01				.00	.08	
				.0	.00	.01			-.00
				26.2	.00	.01	.00	-.09	
				52.4	.00	.00	.00	-.04	
				78.7	.00	-.01	.00	-.00	
				104.9	.00	-.02	.00	.04	
318							.00	.08	
		1	-.49						
				.0	.00	-.02			.01
				26.2	.00	-.01	-.00	.11	
				52.4	.00	.00	-.00	.05	
				78.7	.00	.01	-.00	-.02	
				104.9	.00	.02	-.00	-.08	
		2	-.49				-.00	-.14	
				.0	.00	-.02			.00
				26.2	.00	-.01	-.00	.11	
				52.4	.00	.00	-.00	.05	
				78.7	.00	.01	-.00	-.02	
				104.9	.00	.02	-.00	-.08	
320							-.00	-.14	
		1	-.06						
				.0	.00	.02			-.01
				26.2	.00	.01	.00	-.13	
				52.4	.00	-.00	.00	-.06	
				78.7	.00	-.01	.00	-.00	
				104.9	.00	-.02	.00	.06	
		2	.32				.00	.12	
				.0	.00	.02			-.01
				26.2	.00	.01	.00	-.13	
				52.4			.00	-.06	
.00			-.00				52.4	.00	.00
				78.7	.00	-.01			
				104.9	.00	-.02	.00	.06	
322							.00	.12	
		1	-.44						
				.0	.00	-.02			-.00
				26.2	.00	-.01	-.00	.12	
				52.4	.00	.00	-.00	.06	
								-.01	

FRAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			78.7	.00	.02	-.00	-.07	
			104.9	.00	.03	-.00	-.13	
	2	-.27						
			.0	.00	-.02			-.00
			26.2	.00	-.01	-.00	.12	
			52.4	.00	.00	-.00	.06	
			78.7	.00	.02	-.00	-.01	
			104.9	.00	.03	-.00	-.07	
324							-.13	
	1	-.08						
			.0	.00	.01			-.00
			26.2	.00	.01	.00	-.08	
			52.4	.00	.01	.00	-.04	
			78.7	.00	-.01	.00	-.00	
			104.9	.00	-.01	.00	.04	
	2	.13				.00	.08	
			.0	.00	.01			-.00
			26.2	.00	.01	.00	-.08	
			52.4	.00	.00	.00	-.04	
			78.7	.00	-.01	.00	-.00	
			104.9	.00	-.01	.00	.04	
325						.00	.07	
	1	-.01						
			.0	.00	-.05			-.00
			26.7	.00	-.03	.01	-.36	
			53.3	.00	-.00	.01	-.18	
			80.0	.00	.02	.01	-.00	
			106.7	.00	.05	.01	.17	
	2	-.15				.01	.35	
			.0	.00	-.06			-.00
			26.7	.00	-.05	.01	-.36	
			53.3	.00	-.00	.01	-.18	
			80.0	.00	.02	.01	-.01	
			106.7	.00	.05	.01	.17	
327						.01	.35	
	1	-.77						
			.0	-.00	.07			.05
			26.7	-.00	.03	-.01	.29	
			53.3	-.00	-.02	-.01	.10	
			80.0	-.00	-.06	-.01	-.09	
			106.7	-.00	-.10	-.01	-.28	
	2	-.86				-.01	-.48	
			.0	-.00	.07			.05
			26.7	-.00	.03	-.01	.30	
			53.3			-.01	.10	
	-.01		-.09			53.3	-.00	-.01
			80.0	-.00	-.06			
			106.7	-.00	-.11	-.01	-.22	
329						-.01	-.48	
	1	-.01						
			.0	.00	-.05			-.00
			26.7	.00	-.03	.01	-.36	
			53.3	.00	-.00	.01	-.18	
						.01	-.00	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.0	.00	.02	.01	.17	
			106.7	.00	.05	.01	.35	
	2	-.00						
			.0	.00	-.05	.01	-.35	-.00
			26.7	.00	-.03	.01	-.18	
			53.3	.00	-.00	.01	-.00	
			80.0	.00	.02	.01	.17	
			106.7	.00	.05	.01	.35	
331								
	1	-.77						
			.0	-.00	.07	-.01	.29	.05
			26.7	-.00	.03	-.01	.10	
			53.3	-.00	-.02	-.01	-.09	
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
	2	-.89						
			.0	-.00	.07	-.01	.29	.04
			26.7	-.00	.03	-.01	.10	
			53.3	-.00	-.02	-.01	-.09	
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
333								
	1	-.01						
			.0	.00	-.05	.01	-.35	-.00
			26.7	.00	-.03	.01	-.18	
			53.3	.00	-.00	.01	-.00	
			80.0	.00	.02	.01	.17	
			106.7	.00	.05	.01	.35	
	2	.12						
			.0	.00	-.06	.01	-.36	-.00
			26.7	.00	-.03	.01	-.18	
			53.3	.00	-.00	.01	-.00	
			80.0	.00	.02	.01	.17	
			106.7	.00	.05	.01	.35	
335								
	1	-.77						
			.0	-.00	.07	-.01	.29	.05
			26.7	-.00	.03	-.01	.10	
			53.3	-.00	-.02	-.01	-.09	
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
	2	-.59						
			.0	-.00	.07	-.01	.30	.05
			26.7	-.00	.03	-.01	.10	
			53.3					
	-.01	-.09			58.3	-.00		-.01
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
337								
	1	-.01						
			.0	.00	-.05	.01	-.34	-.00
			26.7	.00	-.03	.01	-.18	
			53.3	.00	-.00	.01	-.00	

F R A M E E L E M E N T F O R C E S

ELT	LOAD ID	COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
				80.0	.00	.02	.01	.17	
				106.7	.00	.05	.01	.35	
	2		.11						
				.0	.00	-.06	.01	-.37	-.01
				26.7	.00	-.03	.01	-.19	
				53.3	.00	-.00	.01	-.01	
				80.0	.00	.02	.01	.17	
339				106.7	.00	.05	.01	.35	
	1		-.11						
				.0	-.00	.07	-.01	.29	.05
				26.7	-.00	.03	-.01	.10	
				53.3	-.00	-.02	-.01	-.09	
				80.0	-.00	-.06	-.01	-.28	
				106.7	-.00	-.10	-.01	-.48	
	2		-.87						
				.0	-.00	.07	-.01	.30	.05
				26.7	-.00	.03	-.01	.10	
				53.3	-.00	-.01	-.01	-.09	
				80.0	-.00	-.06	-.01	-.28	
				106.7	-.00	-.10	-.01	-.47	
341									
	1		-.01						
				.0	.00	-.05	.01	-.36	-.00
				26.7	.00	-.03	.01	-.18	
				53.3	.00	-.00	.01	-.00	
				80.0	.00	.02	.01	.17	
				106.7	.00	.05	.01	.35	
	2		.00						
				.0	.00	-.06	.01	-.36	-.00
				26.7	.00	-.03	.01	-.18	
				53.3	.00	-.00	.01	-.01	
				80.0	.00	.02	.01	.17	
				106.7	.00	.05	.01	.35	
343									
	1		-.77						
				.0	-.00	.07	-.01	.29	.05
				26.7	-.00	.03	-.01	.10	
				53.3	-.00	-.02	-.01	-.09	
				80.0	-.00	-.06	-.01	-.28	
				106.7	-.00	-.10	-.01	-.48	
	2		-.84						
				.0	-.00	.07	-.01	.29	.05
				26.7	-.00	.03	-.01	.10	
				53.3			53.3	-.00	-.02
	-.1		-.13						
				80.0	-.00	-.06	-.01	-.28	
				106.7	-.00	-.10	-.01	-.47	
345									
	1		-.01						
				.0	.00	-.05	.01	-.36	-.00
				26.7	.00	-.03	.01	-.18	
				53.3	.00	-.00	.01	-.00	

KUBAH2 - UNITS Kip-In

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.0	.00	.02	.01	.17	
			106.7	.00	.05	.01	.35	
	2	-.14						
			.0	.00	-.05	.01	-.36	-.00
			26.7	.00	-.03	.01	-.18	
			53.3	.00	-.00	.01	-.01	
			80.0	.00	.02	.01	.17	
347			106.7	.00	.05	.01	.35	
	1	-.77						
			.0	-.00	.07	-.01	.29	.05
			26.7	-.00	.03	-.01	.10	
			53.3	-.00	-.02	-.01	-.09	
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
	2	-.94						
			.0	-.00	.07	-.01	.30	.05
			26.7	-.00	.03	-.01	.10	
			53.3	-.00	-.01	-.01	-.09	
			80.0	-.00	-.06	-.01	-.28	
			106.7	-.00	-.10	-.01	-.48	
326								
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.10	-.01	-.48	
	2	-.61						
			.0	.00	-.07	-.01	.30	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.01	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.10	-.01	-.48	
328								
	1	-.01						
			.0	.00	.05	.01	-.36	.00
			26.7	.00	.03	.01	-.18	
			53.3	.00	.00	.01	-.00	
			80.0	.00	-.02	.01	.17	
			106.7	.00	-.05	.01	.35	
	2	.13						
			.0	.00	.05	.01	-.36	.00
			26.7	.00	.03	.01	-.18	
			53.3					
.01		-.00				53.3	.00	.00
			80.0	.00	-.02	.01	.17	
			106.7	.00	-.05	.01	.35	
330								
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.0	.00	.02	-.01	-.28	
			106.7	.00	.11	-.01	-.48	
	2	-.69						-.04
			.0	.00	-.07	-.01	.29	
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
332			106.7	.00	.11	-.01	-.48	
	1	-.01						
			.0	.00	.02	.01	-.36	.00
			26.7	.00	.01	.01	-.18	
			53.3	.00	.01	.01	-.00	
			80.0	.00	-.01	.01	.17	
			106.7	.00	-.02	.01	.35	
	2	-.00						
			.0	.00	.02	.01	-.36	.00
			26.7	.00	.01	.01	-.18	
			53.3	.00	.01	.01	-.00	
			80.0	.00	-.01	.01	.17	
			106.7	.00	-.02	.01	.35	
334								
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.10	-.01	-.48	
	2	-.87						
			.0	.00	-.07	-.01	.30	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.01	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.11	-.01	-.48	
336								
	1	-.01						
			.0	.00	.02	.01	-.36	.00
			26.7	.00	.01	.01	-.18	
			53.3	.00	.01	.01	-.00	
			80.0	.00	-.01	.01	.17	
			106.7	.00	-.02	.01	.35	
	2	-.13						
			.0	-.00	.02	.01	-.36	.01
			26.7	-.00	.01	.01	-.18	
			53.3			59.3	-.00	.00
	.01	-.01						
			80.0	-.00	-.01	.01	.17	
			106.7	-.00	-.02	.01	.35	
338								
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	

FRAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.10	-.01	-.48	
	3	-.85						
			.0	.00	-.06	-.01	.30	-.05
			26.7	.00	-.06	-.01	.10	
			53.3	.00	.01	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
340			106.7	.00	.10	-.01	-.48	
	1	-.01						
			.0	.00	.05	.01	-.36	.00
			26.7	.00	.03	.01	-.18	
			53.3	.00	.00	.01	-.00	
			80.0	.00	-.02	.01	.17	
			106.7	.00	-.05	.01	.35	
	2	-.14						
			.0	-.00	.05	.01	-.36	.01
			26.7	-.00	.03	.01	-.19	
			53.3	-.00	.00	.01	-.01	
			80.0	-.00	-.02	.01	.17	
342			106.7	-.00	-.05	.01	.35	
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
			106.7	.00	.10	-.01	-.48	
	2	-.84						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.01	-.01	-.09	
			80.0	.00	.06	-.01	-.28	
344			106.7	.00	.10	-.01	-.47	
	1	-.01						
			.0	.00	.05	.01	-.36	.00
			26.7	.00	.03	.01	-.18	
			53.3	.00	.00	.01	-.00	
			80.0	.00	-.02	.01	.17	
			106.7	.00	-.05	.01	.35	
	2	-.01						
			.0	.00	.05	.01	-.36	.00
			26.7	.00	.03	.01	-.18	
			53.3					
	.01	-.00			53.3	.00		.00
			80.0	.00	-.02	.01	.17	
346			106.7	.00	-.05	.01	.35	
	1	-.77						
			.0	.00	-.07	-.01	.29	-.05
			26.7	.00	-.03	-.01	.10	
			53.3	.00	.02	-.01	-.09	

FRAME ELEMENT FORCES

ELT	LOAD ID	COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
				80.0	.00	.06	-.01	-.28	
				106.7	.00	.10	-.01	-.48	
		2	-.67						
				.0	.00	-.07	-.01	.29	-.04
				26.7	.00	-.03	-.01	.10	
				53.3	.00	.02	-.01	-.09	
				80.0	.00	.06	-.01	-.28	
348				106.7	.00	.10	-.01	-.48	
		1	-.01						
				.0	.00	.05	.01	-.36	.00
				26.7	.00	.03	.01	-.18	
				53.3	.00	.00	.01	-.00	
				80.0	.00	-.02	.01	.17	
				106.7	.00	-.05	.01	.35	
		2	.14						
				.0	-.00	.06	.01	-.36	.01
				26.7	-.00	.03	.01	-.18	
				53.3	-.00	.00	.01	-.00	
				80.0	-.00	-.02	.01	.17	
349				106.7	-.00	-.05	.01	.35	
		1	-1.38						
				.0	.00	.00	.01	-.34	.00
				25.1	.00	.00	.01	-.11	
				50.1	.00	.00	.01	.12	
				75.2	.00	.00	.01	.36	
				100.3	.00	.00	.01	.59	
		2	-1.39						
				.0	.00	.00	.01	-.35	.00
				25.1	.00	.00	.01	-.11	
				50.1	.00	.00	.01	.12	
				75.2	.00	.00	.01	.36	
				100.3	.00	.00	.01	.59	
350									
		1	-1.38						
				.0	.00	.00	.01	-.34	.00
				25.1	.00	.00	.01	-.11	
				50.1	.00	.00	.01	.12	
				75.2	.00	.00	.01	.36	
				100.3	.00	.00	.01	.59	
		2	-1.37						
				.0	.00	.00	.01	-.35	.00
				25.1	.00	.00	.01	-.11	
				50.1			50.1	.00	
	.01		.12						.00
				75.2	.00	.00	.01	.36	
				100.3	.00	.00	.01	.59	
351									
		1	-1.38						
				.0	.00	.00	.01	-.34	.00
				25.1	.00	.00	.01	-.11	
				50.1	.00	.00	.01	.12	

FRAME ELEMENT FORCES

ELT ID	LOAD COMB	AXIAL FORCE	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
	2	-1.39						
			.0	.00	.00	.01	-.35	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
352	----------							
	1	-1.38						
			.0	.00	.00	.01	-.34	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
	2	-1.39						
			.0	.00	.00	.01	-.35	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
353	----------							
	1	-1.38						
			.0	.00	.00	.01	-.34	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
	2	-1.38						
			.0	.00	.00	.01	-.34	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
354	----------							
	1	-1.38						
			.0	.00	.00	.01	-.34	.00
			25.1	.00	.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	
	2	-1.38						
			.0	.00	-.00	.01	-.35	-.00
			25.1	.00	-.00	.01	-.11	
			50.1	.00	.00	.01	.12	
			75.2	.00	.00	.01	.36	
			100.3	.00	.00	.01	.59	