BAB V

KESIMPULAN DAN SARAN

V . 1 Kesimpulan

Hasil pembahasan seluruh model struktur dengan tinggi dinding geser 0 % sampai dengan 100 % dari tinggi total struktur yang meliputi waktu getar struktur, defleksi, *base shear reaction* dan *base moment reaction*, gaya geser kolom dan balok, dan momen kolom dan balok dapat disimpulkan beberapa hal sebagai berikut ini.

1. Analisis respon spektrum dari seluruh model menghasilkan waktu getar struktur terbesar pada waktu getar alaminya, yaitu pada *mode shape 1st*. Waktu getar alami terkecil terjadi pada model struktur dengan tinggi dinding geser 80 % dari tinggi total struktur.

2. Defleksi rata-rata terendah untuk arah sumbu global X dan Y terjadi pada struktur dengan tinggi dinding geser 80 % dari tinggi total struktur. Untuk arah sumbu Z, pengaruh tinggi dinding geser yang efektif hanya sampai pada struktur dengan tinggi dinding geser 80 %, selebihnya tidak menunjukkan pengaruh yang berarti.

3. Dengan asumsi berat struktur yang tidak berubah atau tidak dipengaruhi perubahan berat dari berubahnya tinggi dinding geser maka didapat *base shear reaction* dan *base moment reaction* yang sama. Jika dengan asumsi berat struktur bertambah sejalan dengan bertambahnya tinggi dinding

geser maka didapat *base shear reaction* dan *base moment reaction* yang bertambah besar. Dengan kata lain *base shear reaction* dan *base moment reaction* lebih tergantung pada berat dan massa struktur.

4. Adanya dinding geser menyebabkan penurunan gaya geser pada kolom-kolom selain kolom tengah portal yang berhimpit dengan dinding geser. Pada kolom-kolom yang berhimpit dengan dinding geser justru mengalami kenaikan.

5. Struktur dengan tinggi dinding geser 80 % dari tinggi total struktur adalah tinggi efektif dalam menurunkan gaya geser kolom, karena dinding geser yang ada berfungsi dengan baik pada tingkat-tingkat bawah sampai dengan tingkat-tingkat atas. Pada tingkat-tingkat atas yang tidak berdinding geser, gaya geser kolomnya tidak berbeda jauh dengan struktur yang memakai dinding geser penuh sehingga pemakaian dinding geser pada tingkat-tingkat atas tidak akan efektif.

6. Jika ditinjau dari momen kolomnya, pemakaian dinding geser yang efektif hanya pada struktur dengan tinggi dinding geser 70 % sampai dengan 90 % dari tinggi total struktur. Pada ketinggian tersebut, dinding geser berfungsi efektif di semua tingkat struktur.

7. Gaya geser balok dan momen balok mengalami penurunan dengan bertambahnya tinggi dinding geser. Selain mempunyai ketahanan geser yang besar terhadap gaya lateral, dinding geser juga mempunyai ketahanan geser yang besar terhadap gaya vertikal.

Secara keseluruhan dari hasil rekapitulasi pembahasan tersebut dapat disimpulkan bahwa pada sistem struktur portal – dinding geser yang berdinding geser penuh, ternyata dinding geser yang berada di tingkat-tingkat atas struktur tidak lagi berfungsi efektif terhadap struktur. Dinding geser akan lebih efektif jika hanya dibatasi sampai pada ketinggian 80 % dari tinggi total struktur.

V . 2 Saran

Saran yang dapat diajukan dari hasil kesimpulan yang telah dikemukakan adalah sebagai berikut ini.

1. Penggunaan dinding geser untuk menahan beban gempa sebaiknya dibatasi hanya sampai pada ketinggian 80 % dari tinggi total struktur.

2. Perlu adanya penelitian lebih lanjut dengan bentuk struktur dan bentuk dinding geser yang berbeda, letak dinding geser yang berbeda, atau dimensi dinding geser yang berbeda.

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LISTING PROGRAM SAP-90

BATAVIA CITY   TA - 08531/TSS
C Units are kN METERS

SYSTEM
 L=4 V=30

JOINT
C ===== DUKUNGAN JEPIT DASAR =====
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 2    X=17.6    Y=0      Z=0
 3    X=21.2    Y=0      Z=0
 4    X=28.4    Y=0      Z=0
 5    X=35.6    Y=0      Z=0
 6    X=42.8    Y=0      Z=0
 7    X=46.4    Y=0      Z=0
 8    X=50      Y=0      Z=0
 9    X=3       Y=3.6    Z=0
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11    X=50      Y=3.6    Z=0
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14    X=14      Y=7.2    Z=0
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16    X=28.4    Y=7.2    Z=0
17    X=35.6    Y=7.2    Z=0
18    X=42.8    Y=7.2    Z=0
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23    X=26.9    Y=10.8   Z=0
24    X=28.4    Y=10.8   Z=0
25    X=29.9    Y=10.8   Z=0
26    X=34.1    Y=10.8   Z=0
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46    X=37.1    Y=21.6   Z=0
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53    X=26.9    Y=25.2   Z=0
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63    X=21.2    Y=28.8   Z=0
64    X=28.4    Y=28.8   Z=0
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66    X=42.8    Y=28.8   Z=0
67    X=50      Y=28.8   Z=0
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76    X=28.4    Y=36      Z=0
77    X=35.6    Y=36      Z=0
78    X=42.8    Y=36      Z=0
79    X=46.4    Y=36      Z=0
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83    X=28.4    Y=47      Z=0
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86    X=46.4    Y=47      Z=0
87    X=28.4    Y=50      Z=0
88    X=35.6    Y=50      Z=0
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105   X=35.6    Y=0       Z=7.5
106   X=42.8    Y=0       Z=7.5
107   X=46.4    Y=0       Z=7.5
108   X=50      Y=0       Z=7.5
109   X=3       Y=3.6     Z=7.5
110   X=14      Y=3.6     Z=7.5
111   X=50      Y=3.6     Z=7.5
112   X=61      Y=3.6     Z=7.5
113   X=3       Y=7.2     Z=7.5
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115   X=21.2    Y=7.2     Z=7.5
116   X=28.4    Y=7.2     Z=7.5
117   X=35.6    Y=7.2     Z=7.5
118   X=42.8    Y=7.2     Z=7.5
119   X=50      Y=7.2     Z=7.5
120   X=61      Y=7.2     Z=7.5
121   X=21.2    Y=10.8    Z=7.5
122   X=25.2    Y=10.8    Z=7.5
123   X=26.9    Y=10.8    Z=7.5
124   X=28.4    Y=10.8    Z=7.5
125   X=29.9    Y=10.8    Z=7.5
126   X=34.1    Y=10.8    Z=7.5
127   X=35.6    Y=10.8    Z=7.5
128   X=37.1    Y=10.8    Z=7.5
129   X=38.8    Y=10.8    Z=7.5
130   X=42.8    Y=10.8    Z=7.5
131   X=0       Y=14.4    Z=7.5
132   X=3       Y=14.4    Z=7.5
133   X=14      Y=14.4    Z=7.5
134   X=21.2    Y=14.4    Z=7.5
135   X=26.9    Y=14.4    Z=7.5
136   X=37.1    Y=14.4    Z=7.5
137   X=42.8    Y=14.4    Z=7.5
138   X=50      Y=14.4    Z=7.5
139   X=61      Y=14.4    Z=7.5
140   X=64      Y=14.4    Z=7.5
141   X=0       Y=21.6    Z=7.5
142   X=3       Y=21.6    Z=7.5
143   X=14      Y=21.6    Z=7.5
144   X=21.2    Y=21.6    Z=7.5
145   X=26.9    Y=21.6    Z=7.5
146   X=37.1    Y=21.6    Z=7.5
147   X=42.8    Y=21.6    Z=7.5
148   X=50      Y=21.6    Z=7.5
149   X=61      Y=21.6    Z=7.5
150   X=64      Y=21.6    Z=7.5
151   X=21.2    Y=25.2    Z=7.5
152   X=25.2    Y=25.2    Z=7.5
153   X=26.9    Y=25.2    Z=7.5
154   X=28.4    Y=25.2    Z=7.5
155   X=29.9    Y=25.2    Z=7.5
156   X=34.1    Y=25.2    Z=7.5
157   X=35.6    Y=25.2    Z=7.5
158   X=37.1    Y=25.2    Z=7.5
159   X=38.8    Y=25.2    Z=7.5
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161    X=3       Y=28.8    Z=7.5
162    X=14      Y=28.8    Z=7.5
163    X=21.2    Y=28.8    Z=7.5
164    X=28.4    Y=28.8    Z=7.5
165    X=35.6    Y=28.8    Z=7.5
166    X=42.8    Y=28.8    Z=7.5
167    X=50      Y=28.8    Z=7.5
168    X=61      Y=28.8    Z=7.5
169    X=3       Y=32.4    Z=7.5
170    X=14      Y=32.4    Z=7.5
171    X=50      Y=32.4    Z=7.5
172    X=61      Y=32.4    Z=7.5
173    X=14      Y=36      Z=7.5
174    X=17.6    Y=36      Z=7.5
175    X=21.2    Y=36      Z=7.5
176    X=28.4    Y=36      Z=7.5
177    X=35.6    Y=36      Z=7.5
178    X=42.8    Y=36      Z=7.5
179    X=46.4    Y=36      Z=7.5
180    X=50      Y=36      Z=7.5
181    X=17.6    Y=47      Z=7.5
182    X=21.2    Y=47      Z=7.5
183    X=28.4    Y=47      Z=7.5
184    X=35.6    Y=47      Z=7.5
185    X=42.8    Y=47      Z=7.5
186    X=46.4    Y=47      Z=7.5
187    X=28.4    Y=50      Z=7.5
188    X=35.6    Y=50      Z=7.5
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315    X=21.2    Y=7.2     Z=17.5    G=115,315,100
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323    X=26.9    Y=10.8    Z=17.5    G=123,323,100
324    X=28.4    Y=10.8    Z=17.5    G=124,324,100
325    X=29.9    Y=10.8    Z=17.5    G=125,325,100
326    X=34.1    Y=10.8    Z=17.5    G=126,326,100
327    X=35.6    Y=10.8    Z=17.5    G=127,327,100
328    X=37.1    Y=10.8    Z=17.5    G=128,328,100
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336    X=37.1    Y=14.4    Z=17.5    G=136,336,100
337    X=42.8    Y=14.4    Z=17.5    G=137,337,100
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339    X=61      Y=14.4    Z=17.5    G=139,339,100
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355   X=29.9   Y=25.2   Z=17.5   G=155,355,100
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364   X=28.4   Y=28.8   Z=17.5   G=164,364,100
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403   X=21.2   Y=0      Z=21.25
404   X=28.4   Y=0      Z=21.25
405   X=35.6   Y=0      Z=21.25
406   X=42.8   Y=0      Z=21.25
407   X=46.4   Y=0      Z=21.25
408   X=50     Y=0      Z=21.25
409   X=14     Y=3.6    Z=21.25
410   X=50     Y=3.6    Z=21.25
411   X=14     Y=7.2    Z=21.25
412   X=21.2   Y=7.2    Z=21.25
413   X=28.4   Y=7.2    Z=21.25
414   X=35.6   Y=7.2    Z=21.25
415   X=42.8   Y=7.2    Z=21.25
416   X=50     Y=7.2    Z=21.25
417   X=21.2   Y=10.8   Z=21.25
418   X=25.2   Y=10.8   Z=21.25
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420   X=28.4   Y=10.8   Z=21.25
421   X=29.9   Y=10.8   Z=21.25
422   X=34.1   Y=10.8   Z=21.25
423   X=35.6   Y=10.8   Z=21.25
424   X=37.1   Y=10.8   Z=21.25
425   X=38.8   Y=10.8   Z=21.25
426   X=42.8   Y=10.8   Z=21.25
427   X=14     Y=14.4   Z=21.25
428   X=21.2   Y=14.4   Z=21.25
429   X=26.9   Y=14.4   Z=21.25
430   X=37.1   Y=14.4   Z=21.25
431   X=42.8   Y=14.4   Z=21.25
432   X=50     Y=14.4   Z=21.25
433   X=14     Y=21.6   Z=21.25
434   X=21.2   Y=21.6   Z=21.25
435   X=26.9   Y=21.6   Z=21.25
436   X=37.1   Y=21.6   Z=21.25
437   X=42.8   Y=21.6   Z=21.25
438   X=50     Y=21.6   Z=21.25
439   X=21.2   Y=25.2   Z=21.25
440   X=25.2   Y=25.2   Z=21.25
441   X=26.9   Y=25.2   Z=21.25
442   X=28.4   Y=25.2   Z=21.25
443   X=29.9   Y=25.2   Z=21.25
```

```
444   X=34.1   Y=25.2   Z=21.25
445   X=35.6   Y=25.2   Z=21.25
446   X=37.1   Y=25.2   Z=21.25
447   X=38.8   Y=25.2   Z=21.25
448   X=42.8   Y=25.2   Z=21.25
449   X=14     Y=28.8   Z=21.25
450   X=21.2   Y=28.8   Z=21.25
451   X=28.4   Y=28.8   Z=21.25
452   X=35.6   Y=28.8   Z=21.25
453   X=42.8   Y=28.8   Z=21.25
454   X=50     Y=28.8   Z=21.25
455   X=14     Y=32.4   Z=21.25
456   X=50     Y=32.4   Z=21.25
457   X=14     Y=36     Z=21.25
458   X=17.6   Y=36     Z=21.25
459   X=21.2   Y=36     Z=21.25
460   X=28.4   Y=36     Z=21.25
461   X=35.6   Y=36     Z=21.25
462   X=42.8   Y=36     Z=21.25
463   X=46.4   Y=36     Z=21.25
464   X=50     Y=36     Z=21.25
C ===================== LANTAI ATAP =====================
3001   X=14     Y=0       Z=118.75   G=401,3001,100
3002   X=17.6   Y=0       Z=118.75   G=402,3002,100
3003   X=21.2   Y=0       Z=118.75   G=403,3003,100
3004   X=28.4   Y=0       Z=118.75   G=404,3004,100
3005   X=35.6   Y=0       Z=118.75   G=405,3005,100
3006   X=42.8   Y=0       Z=118.75   G=406,3006,100
3007   X=46.4   Y=0       Z=118.75   G=407,3007,100
3008   X=50     Y=0       Z=118.75   G=408,3008,100
3009   X=14     Y=3.6     Z=118.75   G=409,3009,100
3010   X=50     Y=3.6     Z=118.75   G=410,3010,100
3011   X=14     Y=7.2     Z=118.75   G=411,3011,100
3012   X=21.2   Y=7.2     Z=118.75   G=412,3012,100
3013   X=28.4   Y=7.2     Z=118.75   G=413,3013,100
3014   X=35.6   Y=7.2     Z=118.75   G=414,3014,100
3015   X=42.8   Y=7.2     Z=118.75   G=415,3015,100
3016   X=50     Y=7.2     Z=118.75   G=416,3016,100
3017   X=21.2   Y=10.8    Z=118.75   G=417,3017,100
3018   X=25.2   Y=10.8    Z=118.75   G=418,3018,100
3019   X=26.9   Y=10.8    Z=118.75   G=419,3019,100
3020   X=28.4   Y=10.8    Z=118.75   G=420,3020,100
3021   X=29.9   Y=10.8    Z=118.75   G=421,3021,100
3022   X=34.1   Y=10.8    Z=118.75   G=422,3022,100
3023   X=35.6   Y=10.8    Z=118.75   G=423,3023,100
3024   X=37.1   Y=10.8    Z=118.75   G=424,3024,100
3025   X=38.8   Y=10.8    Z=118.75   G=425,3025,100
3026   X=42.8   Y=10.8    Z=118.75   G=426,3026,100
3027   X=14     Y=14.4    Z=118.75   G=427,3027,100
3028   X=21.2   Y=14.4    Z=118.75   G=428,3028,100
3029   X=26.9   Y=14.4    Z=118.75   G=429,3029,100
3030   X=37.1   Y=14.4    Z=118.75   G=430,3030,100
3031   X=42.8   Y=14.4    Z=118.75   G=431,3031,100
3032   X=50     Y=14.4    Z=118.75   G=432,3032,100
3033   X=14     Y=21.6    Z=118.75   G=433,3033,100
3034   X=21.2   Y=21.6    Z=118.75   G=434,3034,100
3035   X=26.9   Y=21.6    Z=118.75   G=435,3035,100
3036   X=37.1   Y=21.6    Z=118.75   G=436,3036,100
3037   X=42.8   Y=21.6    Z=118.75   G=437,3037,100
3038   X=50     Y=21.6    Z=118.75   G=438,3038,100
3039   X=21.2   Y=25.2    Z=118.75   G=439,3039,100
3040   X=25.2   Y=25.2    Z=118.75   G=440,3040,100
3041   X=26.9   Y=25.2    Z=118.75   G=441,3041,100
3042   X=28.4   Y=25.2    Z=118.75   G=442,3042,100
3043   X=29.9   Y=25.2    Z=118.75   G=443,3043,100
3044   X=34.1   Y=25.2    Z=118.75   G=444,3044,100
3045   X=35.6   Y=25.2    Z=118.75   G=445,3045,100
3046   X=37.1   Y=25.2    Z=118.75   G=446,3046,100
3047   X=38.8   Y=25.2    Z=118.75   G=447,3047,100
3048   X=42.8   Y=25.2    Z=118.75   G=448,3048,100
3049   X=14     Y=28.8    Z=118.75   G=449,3049,100
3050   X=21.2   Y=28.8    Z=118.75   G=450,3050,100
3051   X=28.4   Y=28.8    Z=118.75   G=451,3051,100
3052   X=35.6   Y=28.8    Z=118.75   G=452,3052,100
3053   X=42.8   Y=28.8    Z=118.75   G=453,3053,100
3054   X=50     Y=28.8    Z=118.75   G=454,3054,100
3055   X=14     Y=32.4    Z=118.75   G=455,3055,100
3056   X=50     Y=32.4    Z=118.75   G=456,3056,100
3057   X=14     Y=36      Z=118.75   G=457,3057,100
3058   X=17.6   Y=36      Z=118.75   G=458,3058,100
3059   X=21.2   Y=36      Z=118.75   G=459,3059,100
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 3060   X=28.4   Y=36      Z=118.75  G=460,3060,100
 3061   X=35.6   Y=36      Z=118.75  G=461,3061,100
 3062   X=42.8   Y=36      Z=118.75  G=462,3062,100
 3063   X=46.4   Y=36      Z=118.75  G=463,3063,100
 3064   X=50     Y=36      Z=118.75  G=464,3064,100
C =============== MASTER JOINTS ==================
 189    X=32     Y=23.4062    Z=7.5
 289    X=32     Y=23.4062    Z=12.5
 389    X=32     Y=23.4062    Z=17.5
 465    X=32     Y=18         Z=21.25
 565    X=32     Y=18         Z=25
 665    X=32     Y=18         Z=28.75
 765    X=32     Y=18         Z=32.5
 865    X=32     Y=18         Z=36.25
 965    X=32     Y=18         Z=40
1065    X=32     Y=18         Z=43.75
1165    X=32     Y=18         Z=47.5
1265    X=32     Y=18         Z=51.25
1365    X=32     Y=18         Z=55
1465    X=32     Y=18         Z=58.75
1565    X=32     Y=18         Z=62.5
1665    X=32     Y=18         Z=66.25
1765    X=32     Y=18         Z=70
1865    X=32     Y=18         Z=73.75
1965    X=32     Y=18         Z=77.5
2065    X=32     Y=18         Z=81.25
2165    X=32     Y=18         Z=85
2265    X=32     Y=18         Z=88.75
2365    X=32     Y=18         Z=92.5
2465    X=32     Y=18         Z=96.25
2565    X=32     Y=18         Z=100
2665    X=32     Y=18         Z=103.75
2765    X=32     Y=18         Z=107.5
2865    X=32     Y=18         Z=111.25
2965    X=32     Y=18         Z=115
3065    X=32     Y=18         Z=118.75

RESTRAINTS
    1     88    1    R=1,1,1,1,1,1
  101    188    1    R=1,1,0,0,0,1
  201    288    1    R=1,1,0,0,0,1
  301    388    1    R=1,1,0,0,0,1
  401    464    1    R=1,1,0,0,0,1
  501    564    1    R=1,1,0,0,0,1
  601    664    1    R=1,1,0,0,0,1
  701    764    1    R=1,1,0,0,0,1
  801    864    1    R=1,1,0,0,0,1
  901    964    1    R=1,1,0,0,0,1
 1001   1064    1    R=1,1,0,0,0,1
 1101   1164    1    R=1,1,0,0,0,1
 1201   1264    1    R=1,1,0,0,0,1
 1301   1364    1    R=1,1,0,0,0,1
 1401   1464    1    R=1,1,0,0,0,1
 1501   1564    1    R=1,1,0,0,0,1
 1601   1664    1    R=1,1,0,0,0,1
 1701   1764    1    R=1,1,0,0,0,1
 1801   1864    1    R=1,1,0,0,0,1
 1901   1964    1    R=1,1,0,0,0,1
 2001   2064    1    R=1,1,0,0,0,1
 2101   2164    1    R=1,1,0,0,0,1
 2201   2264    1    R=1,1,0,0,0,1
 2301   2364    1    R=1,1,0,0,0,1
 2401   2464    1    R=1,1,0,0,0,1
 2501   2564    1    R=1,1,0,0,0,1
 2601   2664    1    R=1,1,0,0,0,1
 2701   2764    1    R=1,1,0,0,0,1
 2801   2864    1    R=1,1,0,0,0,1
 2901   2964    1    R=1,1,0,0,0,1
 3001   3064    1    R=1,1,0,0,0,1
  189    389   100    R=0,0,1,1,1,0
  465   3065   100    R=0,0,1,1,1,0

FRAME
NM=6 NL=56 Z=-1
1   SH=R   T=0.7,0.5   E=2E7   G=8.3333E7   W=8.2467    M=0.84025
2   SH=R   T=0.5,0.3   E=2E7   G=8.3333E7   W=3.5343    M=0.3601
3   SH=R   T=1.2,1.2   E=2E7   G=8.3333E7   W=33.929    M=3.457
4   SH=R   T=1.2,1.2   E=2E7   G=8.3333E7   W=33.929    M=3.457
5   SH=R   T=1.2,1.2   E=2E7   G=8.3333E7   W=33.929    M=3.457
6   SH=R   T=0.4,0.4   E=2E7   G=8.3333E7   W=3.7699    M=0.38411
```

```
C ====== BEBAN MATI LANTAI ========
  1  WG=0,0,-5.688
  2  WG=0,0,-4.1475          PLD=3.6,-13.365,0
  3  WG=0,0,-5.7397          PLD=5.5,-18.5976,0
  4  WG=0,0,-4.74
  5  WG=0,0,-11.376
  6  WG=0,0,-8.532           PLD=3.6,-82.1664,0
  7  WG=0,0,-8.532           PLD=3.6,-135.9,0
  8  WG=0,0,-8.532           PLD=3.6,-59.6808,0
  9  WG=0,0,-9.9403
 10  WG=0,0,-8.8841          PLD=3.6,-41.0832,0
 11  WG=0,0,-4.266           PLD=3.6,-94.8168,0
 12  WG=0,0,-8.4135          PLD=3.6,-108.1818,0
 13  WG=0,0,-11.4794         PLD=5.5,-82.1664,0
 14  WG=0,0,-11.4794         PLD=5.5,-59.6808,0
C ====== BEBAN HIDUP LANTAI ========
 15  WG=0,0,-3
 16  WG=0,0,-2.1875          PLD=3.6,-5.625,0
 17  WG=0,0,-3.0273          PLD=5.5,-8.1,0
 18  WG=0,0,-2.5
 19  WG=0,0,-6
 20  WG=0,0,-4.5             PLD=3.6,-32.4,0
 21  WG=0,0,-4.5             PLD=3.6,-49.5,0
 22  WG=0,0,-4.5             PLD=3.6,-24.3,0
 23  WG=0,0,-5.2428
 24  WG=0,0,-4.6857          PLD=3.6,-16.2,0
 25  WG=0,0,-2.25            PLD=3.6,-33.3,0
 26  WG=0,0,-4.4375          PLD=3.6,-38.925,0
 27  WG=0,0,-6.0545          PLD=5.5,-32.4,0
 28  WG=0,0,-6.0545          PLD=5.5,-24.3,0
C ======= BEBAN MATI ATAP =========
 29  WG=0,0,-4.632
 30  WG=0,0,-3.3775          PLD=3.6,-11.385,0
 31  WG=0,0,-4.6741          PLD=5.5,-15.7464,0
 32  WG=0,0,-3.86
 33  WG=0,0,-9.264
 34  WG=0,0,-6.948           PLD=3.6,-70.7616,0
 35  WG=0,0,-6.948           PLD=3.6,-118.476,0
 36  WG=0,0,-6.948           PLD=3.6,-51.1272,0
 37  WG=0,0,-8.0949
 38  WG=0,0,-7.2347          PLD=3.6,-35.3808,0
 39  WG=0,0,-3.474           PLD=3.6,-83.0952,0
 40  WG=0,0,-6.8515          PLD=3.6,-94.4802,0
 41  WG=0,0,-9.3482          PLD=5.5,-70.7616,0
 42  WG=0,0,-9.3482          PLD=5.5,-51.1272,0
C ======= BEBAN HIDUP ATAP ========
 43  WG=0,0,-2.04
 44  WG=0,0,-1.4875          PLD=3.6,-3.825,0
 45  WG=0,0,-2.0585          PLD=5.5,-5.508,0
 46  WG=0,0,-3.4
 47  WG=0,0,-4.08
 48  WG=0,0,-3.06            PLD=3.6,-22.032,0
 49  WG=0,0,-3.06            PLD=3.6,-33.66,0
 50  WG=0,0,-3.06            PLD=3.6,-16.524,0
 51  WG=0,0,-3.5651
 52  WG=0,0,-3.1863          PLD=3.6,-11.016,0
 53  WG=0,0,-1.53            PLD=3.6,-22.644,0
 54  WG=0,0,-3.0175          PLD=3.6,-26.469,0
 55  WG=0,0,-4.1171          PLD=5.5,-22.032,0
 56  WG=0,0,-4.1171          PLD=5.5,-16.524,0
C ======================= BALOK LANTAI 1 =======================
C ======================= SEJAJAR SUMBU X ======================
  1    101  102  M=2,2,1 NSL=1,15   MS=189,189  G=1,6,6,6    LP=-2,0
  2    102  103  M=2,2,1 NSL=9,23   MS=189,189  G=1,4,4,4
  3    103  104  M=2,2,1 NSL=10,24  MS=189,189  G=2,1,1,1
  8    109  110  M=1,1,1 NSL=3,17   MS=189,189  G=1,1,2,2
 10    113  114  M=1,1,1 NSL=14,28  MS=189,189  G=1,6,6,6
 11    114  115  M=2,2,1 NSL=6,20   MS=189,189  G=1,4,4,4
 12    115  116  M=2,2,1 NSL=8,22   MS=189,189  G=2,1,1,1
 17    121  122  M=2,2,1            MS=189,189  G=8,1,1,1
 26    131  132  M=2,2,1 NSL=4,18   MS=189,189  G=1,6,10,10
 27    132  133  M=1,1,1 NSL=13,27  MS=189,189  G=1,6,10,10
 28    133  134  M=2,2,1 NSL=6,20   MS=189,189  G=1,6,10,10
 29    137  138  M=2,2,1 NSL=6,20   MS=189,189  G=1,6,10,10
 30    138  139  M=1,1,1 NSL=13,27  MS=189,189  G=1,6,10,10
 31    139  140  M=2,2,1 NSL=4,18   MS=189,189  G=1,6,10,10
 38    151  152  M=2,2,1            MS=189,189  G=8,1,1,1
 47    161  162  M=1,1,1 NSL=14,28  MS=189,189  G=1,6,6,6
 48    162  163  M=2,2,1 NSL=6,20   MS=189,189  G=1,4,4,4
 49    163  164  M=2,2,1 NSL=8,22   MS=189,189  G=2,1,1,1
 54    169  170  M=1,1,1 NSL=3,17   MS=189,189  G=1,1,2,2
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 56    173   174   M=2,2,1 NSL=1,15    MS=189,189   G=1,6,6,6
 57    174   175   M=2,2,1 NSL=5,19    MS=189,189   G=1,4,4,4
 58    175   176   M=2,2,1 NSL=7,21    MS=189,189   G=2,1,1,1
 63    181   182   M=2,2,1 NSL=1,15    MS=189,189   G=1,4,4,4
 64    182   183   M=2,2,1 NSL=11,25   MS=189,189   G=1,2,2,2
 65    183   184   M=2,2,1 NSL=12,26   MS=189,189
 68    187   188   M=2,2,1 NSL=2,16    MS=189,189
C ========================= SEJAJAR SUMBU Y =================================
 69    101   110   M=2,2,1 NSL=1,15    MS=189,189   G=1,5,7,1    LP=3,0
 70    103   115   M=2,2,1 NSL=6,20    MS=189,189   G=3,1,1,1
 75    109   113   M=2,2,1 NSL=1,15    MS=189,189   G=1,3,3,7
 76    110   114   M=2,2,1 NSL=5,19    MS=189,189   G=1,1,1,5
 79    113   132   M=2,2,1 NSL=11,25   MS=189,189   G=1,7,7,7
 80    114   133   M=2,2,1 NSL=7,21    MS=189,189   G=1,5,5,5
 81    115   121   M=2,2,1 NSL=5,19    MS=189,189   G=3,1,1,3
 87    121   134   M=2,2,1            MS=189,189   G=1,1,2,1
 89    128   136   M=2,2,1            MS=189,189   G=1,1,2,1
 91    131   141   M=2,2,1 NSL=2,16    MS=189,189   G=1,9,9,9
 92    132   142   M=2,2,1 NSL=12,26   MS=189,189   G=1,7,7,7
 93    133   143   M=2,2,1 NSL=7,21    MS=189,189   G=1,5,5,5
 94    134   144   M=2,2,1            MS=189,189   G=3,1,1,1
101    142   161   M=2,2,1 NSL=11,25   MS=189,189   G=1,7,7,7
102    143   162   M=2,2,1 NSL=7,21    MS=189,189   G=1,5,5,5
103    144   151   M=2,2,1            MS=189,189   G=1,1,1,2
105    146   158   M=2,2,1            MS=189,189   G=1,1,1,2
109    151   163   M=2,2,1 NSL=5,19    MS=189,189   G=3,1,3,1
113    161   169   M=2,2,1 NSL=1,15    MS=189,189   G=1,7,7,3
114    162   170   M=2,2,1 NSL=5,19    MS=189,189   G=1,5,5,1
115    163   175   M=2,2,1 NSL=6,20    MS=189,189   G=3,1,1,1
121    170   173   M=2,2,1 NSL=1,15    MS=189,189   G=1,1,1,7
123    174   181   M=1,1,1 NSL=3,17    MS=189,189   G=1,5,5,5
124    175   182   M=1,1,1 NSL=14,28   MS=189,189   G=1,3,3,3
125    176   183   M=1,1,1 NSL=13,27   MS=189,189   G=1,1,1,1
129    183   187   M=2,2,1 NSL=4,18    MS=189,189   G=1,1,1,1
C ========================= BALOK LANTAI 2 ==================================
C ========================= SEJAJAR SUMBU X =================================
131    201   202   M=2,2,1 NSL=1,15    MS=289,289   G=1,6,6,6    LP=-2,0
132    202   203   M=2,2,1 NSL=9,23    MS=289,289   G=1,4,4,4
133    203   204   M=2,2,1 NSL=10,24   MS=289,289   G=2,1,1,1
138    209   210   M=1,1,1 NSL=3,17    MS=289,289   G=1,1,2,2
140    213   214   M=1,1,1 NSL=14,28   MS=289,289   G=1,6,6,6
141    214   215   M=2,2,1 NSL=6,20    MS=289,289   G=1,4,4,4
142    215   216   M=2,2,1 NSL=8,22    MS=289,289   G=2,1,1,1
147    221   222   M=2,2,1            MS=289,289   G=8,1,1,1
156    231   232   M=2,2,1 NSL=4,18    MS=289,289   G=1,6,10,10
157    232   233   M=1,1,1 NSL=13,27   MS=289,289   G=1,6,10,10
158    233   234   M=2,2,1 NSL=6,20    MS=289,289   G=1,6,10,10
159    237   238   M=2,2,1 NSL=6,20    MS=289,289   G=1,6,10,10
160    238   239   M=1,1,1 NSL=13,27   MS=289,289   G=1,6,10,10
161    239   240   M=2,2,1 NSL=4,18    MS=289,289   G=1,6,10,10
168    251   252   M=2,2,1            MS=289,289   G=8,1,1,1
177    261   262   M=1,1,1 NSL=14,28   MS=289,289   G=1,6,6,6
178    262   263   M=2,2,1 NSL=6,20    MS=289,289   G=1,4,4,4
179    263   264   M=2,2,1 NSL=8,22    MS=289,289   G=2,1,1,1
184    269   270   M=1,1,1 NSL=3,17    MS=289,289   G=1,1,2,2
186    273   274   M=2,2,1 NSL=1,15    MS=289,289   G=1,6,6,6
187    274   275   M=2,2,1 NSL=5,19    MS=289,289   G=1,4,4,4
188    275   276   M=2,2,1 NSL=7,21    MS=289,289   G=2,1,1,1
193    281   282   M=2,2,1 NSL=1,15    MS=289,289   G=1,4,4,4
194    282   283   M=2,2,1 NSL=11,25   MS=289,289   G=1,2,2,2
195    283   284   M=2,2,1 NSL=12,26   MS=289,289
198    287   288   M=2,2,1 NSL=2,16    MS=289,289
C ========================= SEJAJAR SUMBU Y =================================
199    201   210   M=2,2,1 NSL=1,15    MS=289,289   G=1,5,7,1    LP=3,0
200    203   215   M=2,2,1 NSL=6,20    MS=289,289   G=3,1,1,1
205    209   213   M=2,2,1 NSL=1,15    MS=289,289   G=1,3,3,7
206    210   214   M=2,2,1 NSL=5,19    MS=289,289   G=1,1,1,5
209    213   232   M=2,2,1 NSL=11,25   MS=289,289   G=1,7,7,7
210    214   233   M=2,2,1 NSL=7,21    MS=289,289   G=1,5,5,5
211    215   221   M=2,2,1 NSL=5,19    MS=289,289   G=3,1,1,3
217    221   234   M=2,2,1            MS=289,289   G=1,1,2,1
219    228   236   M=2,2,1            MS=289,289   G=1,1,2,1
221    231   241   M=2,2,1 NSL=2,16    MS=289,289   G=1,9,9,9
222    232   242   M=2,2,1 NSL=12,26   MS=289,289   G=1,7,7,7
223    233   243   M=2,2,1 NSL=7,21    MS=289,289   G=1,5,5,5
224    234   244   M=2,2,1            MS=289,289   G=3,1,1,1
231    242   261   M=2,2,1 NSL=11,25   MS=289,289   G=1,7,7,7
232    243   262   M=2,2,1 NSL=7,21    MS=289,289   G=1,5,5,5
233    244   251   M=2,2,1            MS=289,289   G=1,1,1,2
235    246   258   M=2,2,1            MS=289,289   G=1,1,1,2
239    251   263   M=2,2,1 NSL=5,19    MS=289,289   G=3,1,3,1
```

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 243   261   269   M=2,2,1 NSL=1,15    MS=289,289    G=1,7,7,3
 244   262   270   M=2,2,1 NSL=5,19    MS=289,289    G=1,5,5,1
 245   263   275   M=2,2,1 NSL=6,20    MS=289,289    G=3,1,1,1
 251   270   273   M=2,2,1 NSL=1,15    MS=289,289    G=1,1,1,7
 253   274   281   M=1,1,1 NSL=3,17    MS=289,289    G=1,5,5,5
 254   275   282   M=1,1,1 NSL=14,28   MS=289,289    G=1,3,3,3
 255   276   283   M=1,1,1 NSL=13,27   MS=289,289    G=1,1,1,1
 259   283   287   M=2,2,1 NSL=4,18    MS=289,289    G=1,1,1,1
C ======================= BALOK LANTAI 3 ===============================
C ======================= SEJAJAR SUMBU X ==============================
 261   301   302   M=2,2,1 NSL=1,15    MS=389,389    G=1,6,6,6    LP=-2,0
 262   302   303   M=2,2,1 NSL=9,23    MS=389,389    G=1,4,4,4
 263   303   304   M=2,2,1 NSL=10,24   MS=389,389    G=2,1,1,1
 268   309   310   M=1,1,1 NSL=3,17    MS=389,389    G=1,1,2,2
 270   313   314   M=1,1,1 NSL=14,28   MS=389,389    G=1,6,6,6
 271   314   315   M=2,2,1 NSL=6,20    MS=389,389    G=1,4,4,4
 272   315   316   M=2,2,1 NSL=8,22    MS=389,389    G=2,1,1,1
 277   321   322   M=2,2,1            MS=389,389    G=8,1,1,1
 286   331   332   M=2,2,1 NSL=4,18    MS=389,389    G=1,6,10,10
 287   332   333   M=1,1,1 NSL=13,27   MS=389,389    G=1,6,10,10
 288   333   334   M=2,2,1 NSL=6,20    MS=389,389    G=1,6,10,10
 289   337   338   M=2,2,1 NSL=6,20    MS=389,389    G=1,6,10,10
 290   338   339   M=1,1,1 NSL=13,27   MS=389,389    G=1,6,10,10
 291   339   340   M=2,2,1 NSL=4,18    MS=389,389    G=1,6,10,10
 298   351   352   M=2,2,1            MS=389,389    G=8,1,1,1
 307   361   362   M=1,1,1 NSL=14,28   MS=389,389    G=1,6,6,6
 308   362   363   M=2,2,1 NSL=6,20    MS=389,389    G=1,4,4,4
 309   363   364   M=2,2,1 NSL=8,22    MS=389,389    G=2,1,1,1
 314   369   370   M=1,1,1 NSL=3,17    MS=389,389    G=1,1,2,2
 316   373   374   M=2,2,1 NSL=1,15    MS=389,389    G=1,6,6,6
 317   374   375   M=2,2,1 NSL=5,19    MS=389,389    G=1,4,4,4
 318   375   376   M=2,2,1 NSL=7,21    MS=389,389    G=2,1,1,1
 323   381   382   M=2,2,1 NSL=1,15    MS=389,389    G=1,4,4,4
 324   382   383   M=2,2,1 NSL=11,25   MS=389,389    G=1,2,2,2
 325   383   384   M=2,2,1 NSL=12,26   MS=389,389
 328   387   388   M=2,2,1 NSL=2,16    MS=389,389
C ======================= SEJAJAR SUMBU Y ==============================
 329   301   310   M=2,2,1 NSL=1,15    MS=389,389    G=1,5,7,1    LP=3,0
 330   303   315   M=2,2,1 NSL=6,20    MS=389,389    G=3,1,1,1
 335   309   313   M=2,2,1 NSL=1,15    MS=389,389    G=1,3,3,7
 336   310   314   M=2,2,1 NSL=5,19    MS=389,389    G=1,1,1,5
 339   313   332   M=2,2,1 NSL=11,25   MS=389,389    G=1,7,7,7
 340   314   333   M=2,2,1 NSL=7,21    MS=389,389    G=1,5,5,5
 341   315   321   M=2,2,1 NSL=5,19    MS=389,389    G=3,1,1,3
 347   321   334   M=2,2,1            MS=389,389    G=1,1,2,1
 349   328   336   M=2,2,1            MS=389,389    G=1,1,2,1
 351   331   341   M=2,2,1 NSL=2,16    MS=389,389    G=1,9,9,9
 352   332   342   M=2,2,1 NSL=12,26   MS=389,389    G=1,7,7,7
 353   333   343   M=2,2,1 NSL=7,21    MS=389,389    G=1,5,5,5
 354   334   344   M=2,2,1            MS=389,389    G=3,1,1,1
 361   342   361   M=2,2,1 NSL=11,25   MS=389,389    G=1,7,7,7
 362   343   362   M=2,2,1 NSL=7,21    MS=389,389    G=1,5,5,5
 363   344   351   M=2,2,1            MS=389,389    G=1,1,1,2
 365   346   358   M=2,2,1            MS=389,389    G=1,1,1,2
 369   351   363   M=2,2,1 NSL=5,19    MS=389,389    G=3,1,3,1
 373   361   369   M=2,2,1 NSL=1,15    MS=389,389    G=1,7,7,3
 374   362   370   M=2,2,1 NSL=5,19    MS=389,389    G=1,5,5,1
 375   363   375   M=2,2,1 NSL=6,20    MS=389,389    G=3,1,1,1
 381   370   373   M=2,2,1 NSL=1,15    MS=389,389    G=1,1,1,7
 383   374   381   M=1,1,1 NSL=3,17    MS=389,389    G=1,5,5,5
 384   375   382   M=1,1,1 NSL=14,28   MS=389,389    G=1,3,3,3
 385   376   383   M=1,1,1 NSL=13,27   MS=389,389    G=1,1,1,1
 389   383   387   M=2,2,1 NSL=4,18    MS=389,389    G=1,1,1,1
C ======================= BALOK LANTAI 4 ===============================
C ======================= SEJAJAR SUMBU X ==============================
 401   401   402   M=2,2,1 NSL=1,15    MS=465,465    G=1,6,6,6    LP=-2,0
 402   402   403   M=2,2,1 NSL=9,23    MS=465,465    G=1,4,4,4
 403   403   404   M=2,2,1 NSL=10,24   MS=465,465    G=2,1,1,1
 408   411   412   M=2,2,1 NSL=6,20    MS=465,465    G=1,4,4,4
 409   412   413   M=2,2,1 NSL=8,22    MS=465,465    G=2,1,1,1
 413   417   418   M=2,2,1            MS=465,465    G=8,1,1,1
 422   427   428   M=2,2,1 NSL=6,20    MS=465,465    G=1,1,4,4
 424   433   434   M=2,2,1 NSL=6,20    MS=465,465    G=1,1,4,4
 426   439   440   M=2,2,1            MS=465,465    G=8,1,1,1
 435   449   450   M=2,2,1 NSL=6,20    MS=465,465    G=1,4,4,4
 436   450   451   M=2,2,1 NSL=8,22    MS=465,465    G=2,1,1,1
 440   457   458   M=2,2,1 NSL=1,15    MS=465,465    G=1,6,6,6
 441   458   459   M=2,2,1 NSL=9,23    MS=465,465    G=1,4,4,4
 442   459   460   M=2,2,1 NSL=10,24   MS=465,465    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y ==============================
 447   401   409   M=2,2,1 NSL=1,15    MS=465,465    G=1,5,7,1    LP=3,0
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448    403  412  M=2,2,1 NSL=6,20   MS=465,465   G=3,1,1,1
453    409  411  M=2,2,1 NSL=9,23   MS=465,465   G=1,1,1,5
455    411  427  M=2,2,1 NSL=10,24  MS=465,465   G=1,5,5,5
456    412  417  M=2,2,1 NSL=5,19   MS=465,465   G=3,1,1,3
461    417  428  M=2,2,1            MS=465,465   G=1,1,2,1
463    424  430  M=2,2,1            MS=465,465   G=1,1,2,1
465    427  433  M=2,2,1 NSL=10,24  MS=465,465   G=1,5,5,5
466    428  434  M=2,2,1            MS=465,465   G=3,1,1,1
471    433  449  M=2,2,1 NSL=10,24  MS=465,465   G=1,5,5,5
472    434  439  M=2,2,1            MS=465,465   G=1,1,1,2
474    436  446  M=2,2,1            MS=465,465   G=1,1,1,2
477    439  450  M=2,2,1 NSL=5,19   MS=465,465   G=3,1,3,1
481    449  455  M=2,2,1 NSL=9,23   MS=465,465   G=1,5,5,1
482    450  459  M=2,2,1 NSL=6,20   MS=465,465   G=3,1,1,1
487    455  457  M=2,2,1 NSL=1,15   MS=465,465   G=1,1,1,7
C ========================= BALOK LANTAI 5 =============================
C ========================= SEJAJAR SUMBU X =============================
501    501  502  M=2,2,1 NSL=1,15   MS=565,565   G=1,6,6,6   LP=-2,0
502    502  503  M=2,2,1 NSL=9,23   MS=565,565   G=1,4,4,4
503    503  504  M=2,2,1 NSL=10,24  MS=565,565   G=2,1,1,1
508    511  512  M=2,2,1 NSL=6,20   MS=565,565   G=1,4,4,4
509    512  513  M=2,2,1 NSL=8,22   MS=565,565   G=2,1,1,1
513    517  518  M=2,2,1            MS=565,565   G=8,1,1,1
522    527  528  M=2,2,1 NSL=6,20   MS=565,565   G=1,1,4,4
524    533  534  M=2,2,1 NSL=6,20   MS=565,565   G=1,1,4,4
526    539  540  M=2,2,1            MS=565,565   G=8,1,1,1
535    549  550  M=2,2,1 NSL=6,20   MS=565,565   G=1,4,4,4
536    550  551  M=2,2,1 NSL=8,22   MS=565,565   G=2,1,1,1
540    557  558  M=2,2,1 NSL=1,15   MS=565,565   G=1,6,6,6
541    558  559  M=2,2,1 NSL=9,23   MS=565,565   G=1,4,4,4
542    559  560  M=2,2,1 NSL=10,24  MS=565,565   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
547    501  509  M=2,2,1 NSL=1,15   MS=565,565   G=1,5,7,1   LP=3,0
548    503  512  M=2,2,1 NSL=6,20   MS=565,565   G=3,1,1,1
553    509  511  M=2,2,1 NSL=9,23   MS=565,565   G=1,1,1,5
555    511  527  M=2,2,1 NSL=10,24  MS=565,565   G=1,5,5,5
556    512  517  M=2,2,1 NSL=5,19   MS=565,565   G=3,1,1,3
561    517  528  M=2,2,1            MS=565,565   G=1,1,2,1
563    524  530  M=2,2,1            MS=565,565   G=1,1,2,1
565    527  533  M=2,2,1 NSL=10,24  MS=565,565   G=1,5,5,5
566    528  534  M=2,2,1            MS=565,565   G=3,1,1,1
571    533  549  M=2,2,1 NSL=10,24  MS=565,565   G=1,5,5,5
572    534  539  M=2,2,1            MS=565,565   G=1,1,1,2
574    536  546  M=2,2,1            MS=565,565   G=1,1,1,2
577    539  550  M=2,2,1 NSL=5,19   MS=565,565   G=3,1,3,1
581    549  555  M=2,2,1 NSL=9,23   MS=565,565   G=1,5,5,1
582    550  559  M=2,2,1 NSL=6,20   MS=565,565   G=3,1,1,1
587    555  557  M=2,2,1 NSL=1,15   MS=565,565   G=1,1,1,7
C ========================= BALOK LANTAI 6 =============================
C ========================= SEJAJAR SUMBU X =============================
601    601  602  M=2,2,1 NSL=1,15   MS=665,665   G=1,6,6,6   LP=-2,0
602    602  603  M=2,2,1 NSL=9,23   MS=665,665   G=1,4,4,4
603    603  604  M=2,2,1 NSL=10,24  MS=665,665   G=2,1,1,1
608    611  612  M=2,2,1 NSL=6,20   MS=665,665   G=1,4,4,4
609    612  613  M=2,2,1 NSL=8,22   MS=665,665   G=2,1,1,1
613    617  618  M=2,2,1            MS=665,665   G=8,1,1,1
622    627  628  M=2,2,1 NSL=6,20   MS=665,665   G=1,1,4,4
624    633  634  M=2,2,1 NSL=6,20   MS=665,665   G=1,1,4,4
626    639  640  M=2,2,1            MS=665,665   G=8,1,1,1
635    649  650  M=2,2,1 NSL=6,20   MS=665,665   G=1,4,4,4
636    650  651  M=2,2,1 NSL=8,22   MS=665,665   G=2,1,1,1
640    657  658  M=2,2,1 NSL=1,15   MS=665,665   G=1,6,6,6
641    658  659  M=2,2,1 NSL=9,23   MS=665,665   G=1,4,4,4
642    659  660  M=2,2,1 NSL=10,24  MS=665,665   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
647    601  609  M=2,2,1 NSL=1,15   MS=665,665   G=1,5,7,1   LP=3,0
648    603  612  M=2,2,1 NSL=6,20   MS=665,665   G=3,1,1,1
653    609  611  M=2,2,1 NSL=9,23   MS=665,665   G=1,1,1,5
655    611  627  M=2,2,1 NSL=10,24  MS=665,665   G=1,5,5,5
656    612  617  M=2,2,1 NSL=5,19   MS=665,665   G=3,1,1,3
661    617  628  M=2,2,1            MS=665,665   G=1,1,2,1
663    624  630  M=2,2,1            MS=665,665   G=1,1,2,1
665    627  633  M=2,2,1 NSL=10,24  MS=665,665   G=1,5,5,5
666    628  634  M=2,2,1            MS=665,665   G=3,1,1,1
671    633  649  M=2,2,1 NSL=10,24  MS=665,665   G=1,5,5,5
672    634  639  M=2,2,1            MS=665,665   G=1,1,1,2
674    636  646  M=2,2,1            MS=665,665   G=1,1,1,2
677    639  650  M=2,2,1 NSL=5,19   MS=665,665   G=3,1,3,1
681    649  655  M=2,2,1 NSL=9,23   MS=665,665   G=1,5,5,1
682    650  659  M=2,2,1 NSL=6,20   MS=665,665   G=3,1,1,1
687    655  657  M=2,2,1 NSL=1,15   MS=665,665   G=1,1,1,7
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C ========================= BALOK LANTAI 7 ============================
C ========================= SEJAJAR SUMBU X ===========================
  701    701  702  M=2,2,1 NSL=1,15   MS=765,765   G=1,6,6,6    LP=-2,0
  702    702  703  M=2,2,1 NSL=9,23   MS=765,765   G=1,4,4,4
  703    703  704  M=2,2,1 NSL=10,24  MS=765,765   G=2,1,1,1
  708    711  712  M=2,2,1 NSL=6,20   MS=765,765   G=1,4,4,4
  709    712  713  M=2,2,1 NSL=8,22   MS=765,765   G=2,1,1,1
  713    717  718  M=2,2,1           MS=765,765   G=8,1,1,1
  722    727  728  M=2,2,1 NSL=6,20   MS=765,765   G=1,1,4,4
  724    733  734  M=2,2,1 NSL=6,20   MS=765,765   G=1,1,4,4
  726    739  740  M=2,2,1           MS=765,765   G=8,1,1,1
  735    749  750  M=2,2,1 NSL=6,20   MS=765,765   G=1,4,4,4
  736    750  751  M=2,2,1 NSL=8,22   MS=765,765   G=2,1,1,1
  740    757  758  M=2,2,1 NSL=1,15   MS=765,765   G=1,6,6,6
  741    758  759  M=2,2,1 NSL=9,23   MS=765,765   G=1,4,4,4
  742    759  760  M=2,2,1 NSL=10,24  MS=765,765   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y ===========================
  747    701  709  M=2,2,1 NSL=1,15   MS=765,765   G=1,5,7,1    LP=3,0
  748    703  712  M=2,2,1 NSL=6,20   MS=765,765   G=3,1,1,1
  753    709  711  M=2,2,1 NSL=9,23   MS=765,765   G=1,1,1,5
  755    711  727  M=2,2,1 NSL=10,24  MS=765,765   G=1,5,5,5
  756    712  717  M=2,2,1 NSL=5,19   MS=765,765   G=3,1,1,3
  761    717  728  M=2,2,1           MS=765,765   G=1,1,2,1
  763    724  730  M=2,2,1           MS=765,765   G=1,1,2,1
  765    727  733  M=2,2,1 NSL=10,24  MS=765,765   G=1,5,5,5
  766    728  734  M=2,2,1           MS=765,765   G=3,1,1,1
  771    733  749  M=2,2,1 NSL=10,24  MS=765,765   G=1,5,5,5
  772    734  739  M=2,2,1           MS=765,765   G=1,1,1,2
  774    736  746  M=2,2,1           MS=765,765   G=1,1,1,2
  777    739  750  M=2,2,1 NSL=5,19   MS=765,765   G=3,1,3,1
  781    749  755  M=2,2,1 NSL=9,23   MS=765,765   G=1,5,5,1
  782    750  759  M=2,2,1 NSL=6,20   MS=765,765   G=3,1,1,1
  787    755  757  M=2,2,1 NSL=1,15   MS=765,765   G=1,1,1,7
C ========================= BALOK LANTAI 8 ============================
C ========================= SEJAJAR SUMBU X ===========================
  801    801  802  M=2,2,1 NSL=1,15   MS=865,865   G=1,6,6,6    LP=-2,0
  802    802  803  M=2,2,1 NSL=9,23   MS=865,865   G=1,4,4,4
  803    803  804  M=2,2,1 NSL=10,24  MS=865,865   G=2,1,1,1
  808    811  812  M=2,2,1 NSL=6,20   MS=865,865   G=1,4,4,4
  809    812  813  M=2,2,1 NSL=8,22   MS=865,865   G=2,1,1,1
  813    817  818  M=2,2,1           MS=865,865   G=8,1,1,1
  822    827  828  M=2,2,1 NSL=6,20   MS=865,865   G=1,1,4,4
  824    833  834  M=2,2,1 NSL=6,20   MS=865,865   G=1,1,4,4
  826    839  840  M=2,2,1           MS=865,865   G=8,1,1,1
  835    849  850  M=2,2,1 NSL=6,20   MS=865,865   G=1,4,4,4
  836    850  851  M=2,2,1 NSL=8,22   MS=865,865   G=2,1,1,1
  840    857  858  M=2,2,1 NSL=1,15   MS=865,865   G=1,6,6,6
  841    858  859  M=2,2,1 NSL=9,23   MS=865,865   G=1,4,4,4
  842    859  860  M=2,2,1 NSL=10,24  MS=865,865   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y ===========================
  847    801  809  M=2,2,1 NSL=1,15   MS=865,865   G=1,5,7,1    LP=3,0
  848    803  812  M=2,2,1 NSL=6,20   MS=865,865   G=3,1,1,1
  853    809  811  M=2,2,1 NSL=9,23   MS=865,865   G=1,1,1,5
  855    811  827  M=2,2,1 NSL=10,24  MS=865,865   G=1,5,5,5
  856    812  817  M=2,2,1 NSL=5,19   MS=865,865   G=3,1,1,3
  861    817  828  M=2,2,1           MS=865,865   G=1,1,2,1
  863    824  830  M=2,2,1           MS=865,865   G=1,1,2,1
  865    827  833  M=2,2,1 NSL=10,24  MS=865,865   G=1,5,5,5
  866    828  834  M=2,2,1           MS=865,865   G=3,1,1,1
  871    833  849  M=2,2,1 NSL=10,24  MS=865,865   G=1,5,5,5
  872    834  839  M=2,2,1           MS=865,865   G=1,1,1,2
  874    836  846  M=2,2,1           MS=865,865   G=1,1,1,2
  877    839  850  M=2,2,1 NSL=5,19   MS=865,865   G=3,1,3,1
  881    849  855  M=2,2,1 NSL=9,23   MS=865,865   G=1,5,5,1
  882    850  859  M=2,2,1 NSL=6,20   MS=865,865   G=3,1,1,1
  887    855  857  M=2,2,1 NSL=1,15   MS=865,865   G=1,1,1,7
C ========================= BALOK LANTAI 9 ============================
C ========================= SEJAJAR SUMBU X ===========================
  901    901  902  M=2,2,1 NSL=1,15   MS=965,965   G=1,6,6,6    LP=-2,0
  902    902  903  M=2,2,1 NSL=9,23   MS=965,965   G=1,4,4,4
  903    903  904  M=2,2,1 NSL=10,24  MS=965,965   G=2,1,1,1
  908    911  912  M=2,2,1 NSL=6,20   MS=965,965   G=1,4,4,4
  909    912  913  M=2,2,1 NSL=8,22   MS=965,965   G=2,1,1,1
  913    917  918  M=2,2,1           MS=965,965   G=8,1,1,1
  922    927  928  M=2,2,1 NSL=6,20   MS=965,965   G=1,1,4,4
  924    933  934  M=2,2,1 NSL=6,20   MS=965,965   G=1,1,4,4
  926    939  940  M=2,2,1           MS=965,965   G=8,1,1,1
  935    949  950  M=2,2,1 NSL=6,20   MS=965,965   G=1,4,4,4
  936    950  951  M=2,2,1 NSL=8,22   MS=965,965   G=2,1,1,1
  940    957  958  M=2,2,1 NSL=1,15   MS=965,965   G=1,6,6,6
  941    958  959  M=2,2,1 NSL=9,23   MS=965,965   G=1,4,4,4
```

```
 942     959   960  M=2,2,1 NSL=10,24  MS=965,965    G=2,1,1,1
C =====================  SEJAJAR SUMBU Y ================================
 947     901   909  M=2,2,1 NSL=1,15    MS=965,965    G=1,5,7,1    LP=3,0
 948     903   912  M=2,2,1 NSL=6,20    MS=965,965    G=3,1,1,1
 953     909   911  M=2,2,1 NSL=9,23    MS=965,965    G=1,1,1,5
 955     911   927  M=2,2,1 NSL=10,24   MS=965,965    G=1,5,5,5
 956     912   917  M=2,2,1 NSL=5,19    MS=965,965    G=3,1,1,3
 961     917   928  M=2,2,1             MS=965,965    G=1,1,2,1
 963     924   930  M=2,2,1             MS=965,965    G=1,1,2,1
 965     927   933  M=2,2,1 NSL=10,24   MS=965,965    G=1,5,5,5
 966     928   934  M=2,2,1             MS=965,965    G=3,1,1,1
 971     933   949  M=2,2,1 NSL=10,24   MS=965,965    G=1,5,5,5
 972     934   939  M=2,2,1             MS=965,965    G=1,1,1,2
 974     936   946  M=2,2,1             MS=965,965    G=1,1,1,2
 977     939   950  M=2,2,1 NSL=5,19    MS=965,965    G=3,1,3,1
 981     949   955  M=2,2,1 NSL=9,23    MS=965,965    G=1,5,5,1
 982     950   959  M=2,2,1 NSL=6,20    MS=965,965    G=3,1,1,1
 987     955   957  M=2,2,1 NSL=1,15    MS=965,965    G=1,1,1,7
C =====================  BALOK LANTAI 10 ============================
C =====================  SEJAJAR SUMBU X ============================
1001   1001 1002  M=2,2,1 NSL=1,15    MS=1065,1065   G=1,6,6,6    LP=-2,0
1002   1002 1003  M=2,2,1 NSL=9,23    MS=1065,1065   G=1,4,4,4
1003   1003 1004  M=2,2,1 NSL=10,24   MS=1065,1065   G=2,1,1,1
1008   1011 1012  M=2,2,1 NSL=6,20    MS=1065,1065   G=1,4,4,4
1009   1012 1013  M=2,2,1 NSL=8,22    MS=1065,1065   G=2,1,1,1
1013   1017 1018  M=2,2,1             MS=1065,1065   G=8,1,1,1
1022   1027 1028  M=2,2,1 NSL=6,20    MS=1065,1065   G=1,1,4,4
1024   1033 1034  M=2,2,1 NSL=6,20    MS=1065,1065   G=1,1,4,4
1026   1039 1040  M=2,2,1             MS=1065,1065   G=8,1,1,1
1035   1049 1050  M=2,2,1 NSL=6,20    MS=1065,1065   G=1,4,4,4
1036   1050 1051  M=2,2,1 NSL=8,22    MS=1065,1065   G=2,1,1,1
1040   1057 1058  M=2,2,1 NSL=1,15    MS=1065,1065   G=1,6,6,6
1041   1058 1059  M=2,2,1 NSL=9,23    MS=1065,1065   G=1,4,4,4
1042   1059 1060  M=2,2,1 NSL=10,24   MS=1065,1065   G=2,1,1,1
C =====================  SEJAJAR SUMBU Y ============================
1047   1001 1009  M=2,2,1 NSL=1,15    MS=1065,1065   G=1,5,7,1    LP=3,0
1048   1003 1012  M=2,2,1 NSL=6,20    MS=1065,1065   G=3,1,1,1
1053   1009 1011  M=2,2,1 NSL=9,23    MS=1065,1065   G=1,1,1,5
1055   1011 1027  M=2,2,1 NSL=10,24   MS=1065,1065   G=1,5,5,5
1056   1012 1017  M=2,2,1 NSL=5,19    MS=1065,1065   G=3,1,1,3
1061   1017 1028  M=2,2,1             MS=1065,1065   G=1,1,2,1
1063   1024 1030  M=2,2,1             MS=1065,1065   G=1,1,2,1
1065   1027 1033  M=2,2,1 NSL=10,24   MS=1065,1065   G=1,5,5,5
1066   1028 1034  M=2,2,1             MS=1065,1065   G=3,1,1,1
1071   1033 1049  M=2,2,1 NSL=10,24   MS=1065,1065   G=1,5,5,5
1072   1034 1039  M=2,2,1             MS=1065,1065   G=1,1,1,2
1074   1036 1046  M=2,2,1             MS=1065,1065   G=1,1,1,2
1077   1039 1050  M=2,2,1 NSL=5,19    MS=1065,1065   G=3,1,3,1
1081   1049 1055  M=2,2,1 NSL=9,23    MS=1065,1065   G=1,5,5,1
1082   1050 1059  M=2,2,1 NSL=6,20    MS=1065,1065   G=3,1,1,1
1087   1055 1057  M=2,2,1 NSL=1,15    MS=1065,1065   G=1,1,1,7
C =====================  BALOK LANTAI 11 ============================
C =====================  SEJAJAR SUMBU X ============================
1101   1101 1102  M=2,2,1 NSL=1,15    MS=1165,1165   G=1,6,6,6    LP=-2,0
1102   1102 1103  M=2,2,1 NSL=9,23    MS=1165,1165   G=1,4,4,4
1103   1103 1104  M=2,2,1 NSL=10,24   MS=1165,1165   G=2,1,1,1
1108   1111 1112  M=2,2,1 NSL=6,20    MS=1165,1165   G=1,4,4,4
1109   1112 1113  M=2,2,1 NSL=8,22    MS=1165,1165   G=2,1,1,1
1113   1117 1118  M=2,2,1             MS=1165,1165   G=8,1,1,1
1122   1127 1128  M=2,2,1 NSL=6,20    MS=1165,1165   G=1,1,4,4
1124   1133 1134  M=2,2,1 NSL=6,20    MS=1165,1165   G=1,1,4,4
1126   1139 1140  M=2,2,1             MS=1165,1165   G=8,1,1,1
1135   1149 1150  M=2,2,1 NSL=6,20    MS=1165,1165   G=1,4,4,4
1136   1150 1151  M=2,2,1 NSL=8,22    MS=1165,1165   G=2,1,1,1
1140   1157 1158  M=2,2,1 NSL=1,15    MS=1165,1165   G=1,6,6,6
1141   1158 1159  M=2,2,1 NSL=9,23    MS=1165,1165   G=1,4,4,4
1142   1159 1160  M=2,2,1 NSL=10,24   MS=1165,1165   G=2,1,1,1
C =====================  SEJAJAR SUMBU Y ============================
1147   1101 1109  M=2,2,1 NSL=1,15    MS=1165,1165   G=1,5,7,1    LP=3,0
1148   1103 1112  M=2,2,1 NSL=6,20    MS=1165,1165   G=3,1,1,1
1153   1109 1111  M=2,2,1 NSL=9,23    MS=1165,1165   G=1,1,1,5
1155   1111 1127  M=2,2,1 NSL=10,24   MS=1165,1165   G=1,5,5,5
1156   1112 1117  M=2,2,1 NSL=5,19    MS=1165,1165   G=3,1,1,3
1161   1117 1128  M=2,2,1             MS=1165,1165   G=1,1,2,1
1163   1124 1130  M=2,2,1             MS=1165,1165   G=1,1,2,1
1165   1127 1133  M=2,2,1 NSL=10,24   MS=1165,1165   G=1,5,5,5
1166   1128 1134  M=2,2,1             MS=1165,1165   G=3,1,1,1
1171   1133 1149  M=2,2,1 NSL=10,24   MS=1165,1165   G=1,5,5,5
1172   1134 1139  M=2,2,1             MS=1165,1165   G=1,1,1,2
1174   1136 1146  M=2,2,1             MS=1165,1165   G=1,1,1,2
1177   1139 1150  M=2,2,1 NSL=5,19    MS=1165,1165   G=3,1,3,1
```

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 1181  1149 1155  M=2,2,1 NSL=9,23    MS=1165,1165   G=1,5,5,1
 1182  1150 1159  M=2,2,1 NSL=6,20    MS=1165,1165   G=3,1,1,1
 1187  1155 1157  M=2,2,1 NSL=1,15    MS=1165,1165   G=1,1,1,7
C ========================= BALOK LANTAI 12 ===============================
C ========================= SEJAJAR SUMBU X ===============================
 1201  1201 1202  M=2,2,1 NSL=1,15    MS=1265,1265   G=1,6,6,6    LP=-2,0
 1202  1202 1203  M=2,2,1 NSL=9,23    MS=1265,1265   G=1,4,4,4
 1203  1203 1204  M=2,2,1 NSL=10,24   MS=1265,1265   G=2,1,1,1
 1208  1211 1212  M=2,2,1 NSL=6,20    MS=1265,1265   G=1,4,4,4
 1209  1212 1213  M=2,2,1 NSL=8,22    MS=1265,1265   G=2,1,1,1
 1213  1217 1218  M=2,2,1            MS=1265,1265   G=8,1,1,1
 1222  1227 1228  M=2,2,1 NSL=6,20    MS=1265,1265   G=1,1,4,4
 1224  1233 1234  M=2,2,1 NSL=6,20    MS=1265,1265   G=1,1,4,4
 1226  1239 1240  M=2,2,1            MS=1265,1265   G=8,1,1,1
 1235  1249 1250  M=2,2,1 NSL=6,20    MS=1265,1265   G=1,4,4,4
 1236  1250 1251  M=2,2,1 NSL=8,22    MS=1265,1265   G=2,1,1,1
 1240  1257 1258  M=2,2,1 NSL=1,15    MS=1265,1265   G=1,6,6,6
 1241  1258 1259  M=2,2,1 NSL=9,23    MS=1265,1265   G=1,4,4,4
 1242  1259 1260  M=2,2,1 NSL=10,24   MS=1265,1265   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y ===============================
 1247  1201 1209  M=2,2,1 NSL=1,15    MS=1265,1265   G=1,5,7,1    LP=3,0
 1248  1203 1212  M=2,2,1 NSL=6,20    MS=1265,1265   G=3,1,1,1
 1253  1209 1211  M=2,2,1 NSL=9,23    MS=1265,1265   G=1,1,1,5
 1255  1211 1227  M=2,2,1 NSL=10,24   MS=1265,1265   G=1,5,5,5
 1256  1212 1217  M=2,2,1 NSL=5,19    MS=1265,1265   G=3,1,1,3
 1261  1217 1228  M=2,2,1            MS=1265,1265   G=1,1,2,1
 1263  1224 1230  M=2,2,1            MS=1265,1265   G=1,1,2,1
 1265  1227 1233  M=2,2,1 NSL=10,24   MS=1265,1265   G=1,5,5,5
 1266  1228 1234  M=2,2,1            MS=1265,1265   G=3,1,1,1
 1271  1233 1249  M=2,2,1 NSL=10,24   MS=1265,1265   G=1,5,5,5
 1272  1234 1239  M=2,2,1            MS=1265,1265   G=1,1,1,2
 1274  1236 1246  M=2,2,1            MS=1265,1265   G=1,1,1,2
 1277  1239 1250  M=2,2,1 NSL=5,19    MS=1265,1265   G=3,1,3,1
 1281  1249 1255  M=2,2,1 NSL=9,23    MS=1265,1265   G=1,5,5,1
 1282  1250 1259  M=2,2,1 NSL=6,20    MS=1265,1265   G=3,1,1,1
 1287  1255 1257  M=2,2,1 NSL=1,15    MS=1265,1265   G=1,1,1,7
C ========================= BALOK LANTAI 13 ===============================
C ========================= SEJAJAR SUMBU X ===============================
 1301  1301 1302  M=2,2,1 NSL=1,15    MS=1365,1365   G=1,6,6,6    LP=-2,0
 1302  1302 1303  M=2,2,1 NSL=9,23    MS=1365,1365   G=1,4,4,4
 1303  1303 1304  M=2,2,1 NSL=10,24   MS=1365,1365   G=2,1,1,1
 1308  1311 1312  M=2,2,1 NSL=6,20    MS=1365,1365   G=1,4,4,4
 1309  1312 1313  M=2,2,1 NSL=8,22    MS=1365,1365   G=2,1,1,1
 1313  1317 1318  M=2,2,1            MS=1365,1365   G=8,1,1,1
 1322  1327 1328  M=2,2,1 NSL=6,20    MS=1365,1365   G=1,1,4,4
 1324  1333 1334  M=2,2,1 NSL=6,20    MS=1365,1365   G=1,1,4,4
 1326  1339 1340  M=2,2,1            MS=1365,1365   G=8,1,1,1
 1335  1349 1350  M=2,2,1 NSL=6,20    MS=1365,1365   G=1,4,4,4
 1336  1350 1351  M=2,2,1 NSL=8,22    MS=1365,1365   G=2,1,1,1
 1340  1357 1358  M=2,2,1 NSL=1,15    MS=1365,1365   G=1,6,6,6
 1341  1358 1359  M=2,2,1 NSL=9,23    MS=1365,1365   G=1,4,4,4
 1342  1359 1360  M=2,2,1 NSL=10,24   MS=1365,1365   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y ===============================
 1347  1301 1309  M=2,2,1 NSL=1,15    MS=1365,1365   G=1,5,7,1    LP=3,0
 1348  1303 1312  M=2,2,1 NSL=6,20    MS=1365,1365   G=3,1,1,1
 1353  1309 1311  M=2,2,1 NSL=9,23    MS=1365,1365   G=1,1,1,5
 1355  1311 1327  M=2,2,1 NSL=10,24   MS=1365,1365   G=1,5,5,5
 1356  1312 1317  M=2,2,1 NSL=5,19    MS=1365,1365   G=3,1,1,3
 1361  1317 1328  M=2,2,1            MS=1365,1365   G=1,1,2,1
 1363  1324 1330  M=2,2,1            MS=1365,1365   G=1,1,2,1
 1365  1327 1333  M=2,2,1 NSL=10,24   MS=1365,1365   G=1,5,5,5
 1366  1328 1334  M=2,2,1            MS=1365,1365   G=3,1,1,1
 1371  1333 1349  M=2,2,1 NSL=10,24   MS=1365,1365   G=1,5,5,5
 1372  1334 1339  M=2,2,1            MS=1365,1365   G=1,1,1,2
 1374  1336 1346  M=2,2,1            MS=1365,1365   G=1,1,1,2
 1377  1339 1350  M=2,2,1 NSL=5,19    MS=1365,1365   G=3,1,3,1
 1381  1349 1355  M=2,2,1 NSL=9,23    MS=1365,1365   G=1,5,5,1
 1382  1350 1359  M=2,2,1 NSL=6,20    MS=1365,1365   G=3,1,1,1
 1387  1355 1357  M=2,2,1 NSL=1,15    MS=1365,1365   G=1,1,1,7
C ========================= BALOK LANTAI 14 ===============================
C ========================= SEJAJAR SUMBU X ===============================
 1401  1401 1402  M=2,2,1 NSL=1,15    MS=1465,1465   G=1,6,6,6    LP=-2,0
 1402  1402 1403  M=2,2,1 NSL=9,23    MS=1465,1465   G=1,4,4,4
 1403  1403 1404  M=2,2,1 NSL=10,24   MS=1465,1465   G=2,1,1,1
 1408  1411 1412  M=2,2,1 NSL=6,20    MS=1465,1465   G=1,4,4,4
 1409  1412 1413  M=2,2,1 NSL=8,22    MS=1465,1465   G=2,1,1,1
 1413  1417 1418  M=2,2,1            MS=1465,1465   G=8,1,1,1
 1422  1427 1428  M=2,2,1 NSL=6,20    MS=1465,1465   G=1,1,4,4
 1424  1433 1434  M=2,2,1 NSL=6,20    MS=1465,1465   G=1,1,4,4
 1426  1439 1440  M=2,2,1            MS=1465,1465   G=8,1,1,1
 1435  1449 1450  M=2,2,1 NSL=6,20    MS=1465,1465   G=1,4,4,4
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 1436  1450 1451  M=2,2,1 NSL=8,22    MS=1465,1465    G=2,1,1,1
 1440  1457 1458  M=2,2,1 NSL=1,15    MS=1465,1465    G=1,6,6,6
 1441  1458 1459  M=2,2,1 NSL=9,23    MS=1465,1465    G=1,4,4,4
 1442  1459 1460  M=2,2,1 NSL=10,24   MS=1465,1465    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y =============================
 1447  1401 1409  M=2,2,1 NSL=1,15    MS=1465,1465    G=1,5,7,1   LP=3,0
 1448  1403 1412  M=2,2,1 NSL=6,20    MS=1465,1465    G=3,1,1,1
 1453  1409 1411  M=2,2,1 NSL=9,23    MS=1465,1465    G=1,1,1,5
 1455  1411 1427  M=2,2,1 NSL=10,24   MS=1465,1465    G=1,5,5,5
 1456  1412 1417  M=2,2,1 NSL=5,19    MS=1465,1465    G=3,1,1,3
 1461  1417 1428  M=2,2,1            MS=1465,1465    G=1,1,2,1
 1463  1424 1430  M=2,2,1            MS=1465,1465    G=1,1,2,1
 1465  1427 1433  M=2,2,1 NSL=10,24   MS=1465,1465    G=1,5,5,5
 1466  1428 1434  M=2,2,1            MS=1465,1465    G=3,1,1,1
 1471  1433 1449  M=2,2,1 NSL=10,24   MS=1465,1465    G=1,5,5,5
 1472  1434 1439  M=2,2,1            MS=1465,1465    G=1,1,1,2
 1474  1436 1446  M=2,2,1            MS=1465,1465    G=1,1,1,2
 1477  1439 1450  M=2,2,1 NSL=5,19    MS=1465,1465    G=3,1,3,1
 1481  1449 1455  M=2,2,1 NSL=9,23    MS=1465,1465    G=1,5,5,1
 1482  1450 1459  M=2,2,1 NSL=6,20    MS=1465,1465    G=3,1,1,1
 1487  1455 1457  M=2,2,1 NSL=1,15    MS=1465,1465    G=1,1,1,7
C ======================= BALOK LANTAI 15 =============================
C ======================= SEJAJAR SUMBU X =============================
 1501  1501 1502  M=2,2,1 NSL=1,15    MS=1565,1565    G=1,6,6,6   LP=-2,0
 1502  1502 1503  M=2,2,1 NSL=9,23    MS=1565,1565    G=1,4,4,4
 1503  1503 1504  M=2,2,1 NSL=10,24   MS=1565,1565    G=2,1,1,1
 1508  1511 1512  M=2,2,1 NSL=6,20    MS=1565,1565    G=1,4,4,4
 1509  1512 1513  M=2,2,1 NSL=8,22    MS=1565,1565    G=2,1,1,1
 1513  1517 1518  M=2,2,1            MS=1565,1565    G=8,1,1,1
 1522  1527 1528  M=2,2,1 NSL=6,20    MS=1565,1565    G=1,1,4,4
 1524  1533 1534  M=2,2,1 NSL=6,20    MS=1565,1565    G=1,1,4,4
 1526  1539 1540  M=2,2,1            MS=1565,1565    G=8,1,1,1
 1535  1549 1550  M=2,2,1 NSL=6,20    MS=1565,1565    G=1,4,4,4
 1536  1550 1551  M=2,2,1 NSL=8,22    MS=1565,1565    G=2,1,1,1
 1540  1557 1558  M=2,2,1 NSL=1,15    MS=1565,1565    G=1,6,6,6
 1541  1558 1559  M=2,2,1 NSL=9,23    MS=1565,1565    G=1,4,4,4
 1542  1559 1560  M=2,2,1 NSL=10,24   MS=1565,1565    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y =============================
 1547  1501 1509  M=2,2,1 NSL=1,15    MS=1565,1565    G=1,5,7,1   LP=3,0
 1548  1503 1512  M=2,2,1 NSL=6,20    MS=1565,1565    G=3,1,1,1
 1553  1509 1511  M=2,2,1 NSL=9,23    MS=1565,1565    G=1,1,1,5
 1555  1511 1527  M=2,2,1 NSL=10,24   MS=1565,1565    G=1,5,5,5
 1556  1512 1517  M=2,2,1 NSL=5,19    MS=1565,1565    G=3,1,1,3
 1561  1517 1528  M=2,2,1            MS=1565,1565    G=1,1,2,1
 1563  1524 1530  M=2,2,1            MS=1565,1565    G=1,1,2,1
 1565  1527 1533  M=2,2,1 NSL=10,24   MS=1565,1565    G=1,5,5,5
 1566  1528 1534  M=2,2,1            MS=1565,1565    G=3,1,1,1
 1571  1533 1549  M=2,2,1 NSL=10,24   MS=1565,1565    G=1,5,5,5
 1572  1534 1539  M=2,2,1            MS=1565,1565    G=1,1,1,2
 1574  1536 1546  M=2,2,1            MS=1565,1565    G=1,1,1,2
 1577  1539 1550  M=2,2,1 NSL=5,19    MS=1565,1565    G=3,1,3,1
 1581  1549 1555  M=2,2,1 NSL=9,23    MS=1565,1565    G=1,5,5,1
 1582  1550 1559  M=2,2,1 NSL=6,20    MS=1565,1565    G=3,1,1,1
 1587  1555 1557  M=2,2,1 NSL=1,15    MS=1565,1565    G=1,1,1,7
C ======================= BALOK LANTAI 16 =============================
C ======================= SEJAJAR SUMBU X =============================
 1601  1601 1602  M=2,2,1 NSL=1,15    MS=1665,1665    G=1,6,6,6   LP=-2,0
 1602  1602 1603  M=2,2,1 NSL=9,23    MS=1665,1665    G=1,4,4,4
 1603  1603 1604  M=2,2,1 NSL=10,24   MS=1665,1665    G=2,1,1,1
 1608  1611 1612  M=2,2,1 NSL=6,20    MS=1665,1665    G=1,4,4,4
 1609  1612 1613  M=2,2,1 NSL=8,22    MS=1665,1665    G=2,1,1,1
 1613  1617 1618  M=2,2,1            MS=1665,1665    G=8,1,1,1
 1622  1627 1628  M=2,2,1 NSL=6,20    MS=1665,1665    G=1,1,4,4
 1624  1633 1634  M=2,2,1 NSL=6,20    MS=1665,1665    G=1,1,4,4
 1626  1639 1640  M=2,2,1            MS=1665,1665    G=8,1,1,1
 1635  1649 1650  M=2,2,1 NSL=6,20    MS=1665,1665    G=1,4,4,4
 1636  1650 1651  M=2,2,1 NSL=8,22    MS=1665,1665    G=2,1,1,1
 1640  1657 1658  M=2,2,1 NSL=1,15    MS=1665,1665    G=1,6,6,6
 1641  1658 1659  M=2,2,1 NSL=9,23    MS=1665,1665    G=1,4,4,4
 1642  1659 1660  M=2,2,1 NSL=10,24   MS=1665,1665    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y =============================
 1647  1601 1609  M=2,2,1 NSL=1,15    MS=1665,1665    G=1,5,7,1   LP=3,0
 1648  1603 1612  M=2,2,1 NSL=6,20    MS=1665,1665    G=3,1,1,1
 1653  1609 1611  M=2,2,1 NSL=9,23    MS=1665,1665    G=1,1,1,5
 1655  1611 1627  M=2,2,1 NSL=10,24   MS=1665,1665    G=1,5,5,5
 1656  1612 1617  M=2,2,1 NSL=5,19    MS=1665,1665    G=3,1,1,3
 1661  1617 1628  M=2,2,1            MS=1665,1665    G=1,1,2,1
 1663  1624 1630  M=2,2,1            MS=1665,1665    G=1,1,2,1
 1665  1627 1633  M=2,2,1 NSL=10,24   MS=1665,1665    G=1,5,5,5
 1666  1628 1634  M=2,2,1            MS=1665,1665    G=3,1,1,1
 1671  1633 1649  M=2,2,1 NSL=10,24   MS=1665,1665    G=1,5,5,5
```

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 1672  1634 1639  M=2,2,1           MS=1665,1665   G=1,1,1,2
 1674  1636 1646  M=2,2,1           MS=1665,1665   G=1,1,1,2
 1677  1639 1650  M=2,2,1 NSL=5,19  MS=1665,1665   G=3,1,3,1
 1681  1649 1655  M=2,2,1 NSL=9,23  MS=1665,1665   G=1,5,5,1
 1682  1650 1659  M=2,2,1 NSL=6,20  MS=1665,1665   G=3,1,1,1
 1687  1655 1657  M=2,2,1 NSL=1,15  MS=1665,1665   G=1,1,1,7
C ===================== BALOK LANTAI 17 ==============================
C ===================== SEJAJAR SUMBU X ==============================
 1701  1701 1702  M=2,2,1 NSL=1,15   MS=1765,1765   G=1,6,6,6   LP=-2,0
 1702  1702 1703  M=2,2,1 NSL=9,23   MS=1765,1765   G=1,4,4,4
 1703  1703 1704  M=2,2,1 NSL=10,24  MS=1765,1765   G=2,1,1,1
 1708  1711 1712  M=2,2,1 NSL=6,20   MS=1765,1765   G=1,4,4,4
 1709  1712 1713  M=2,2,1 NSL=8,22   MS=1765,1765   G=2,1,1,1
 1713  1717 1718  M=2,2,1            MS=1765,1765   G=8,1,1,1
 1722  1727 1728  M=2,2,1 NSL=6,20   MS=1765,1765   G=1,4,4,4
 1724  1733 1734  M=2,2,1 NSL=6,20   MS=1765,1765   G=1,1,4,4
 1726  1739 1740  M=2,2,1            MS=1765,1765   G=8,1,1,1
 1735  1749 1750  M=2,2,1 NSL=6,20   MS=1765,1765   G=1,4,4,4
 1736  1750 1751  M=2,2,1 NSL=8,22   MS=1765,1765   G=2,1,1,1
 1740  1757 1758  M=2,2,1 NSL=1,15   MS=1765,1765   G=1,6,6,6
 1741  1758 1759  M=2,2,1 NSL=9,23   MS=1765,1765   G=1,4,4,4
 1742  1759 1760  M=2,2,1 NSL=10,24  MS=1765,1765   G=2,1,1,1
C ===================== SEJAJAR SUMBU Y ==============================
 1747  1701 1709  M=2,2,1 NSL=1,15   MS=1765,1765   G=1,5,7,1   LP=3,0
 1748  1703 1712  M=2,2,1 NSL=6,20   MS=1765,1765   G=3,1,1,1
 1753  1709 1711  M=2,2,1 NSL=9,23   MS=1765,1765   G=1,1,1,5
 1755  1711 1727  M=2,2,1 NSL=10,24  MS=1765,1765   G=1,5,5,5
 1756  1712 1717  M=2,2,1 NSL=5,19   MS=1765,1765   G=3,1,1,3
 1761  1717 1728  M=2,2,1            MS=1765,1765   G=1,1,2,1
 1763  1724 1730  M=2,2,1            MS=1765,1765   G=1,1,2,1
 1765  1727 1733  M=2,2,1 NSL=10,24  MS=1765,1765   G=1,5,5,5
 1766  1728 1734  M=2,2,1            MS=1765,1765   G=3,1,1,1
 1771  1733 1749  M=2,2,1 NSL=10,24  MS=1765,1765   G=1,5,5,5
 1772  1734 1739  M=2,2,1            MS=1765,1765   G=1,1,1,2
 1774  1736 1746  M=2,2,1            MS=1765,1765   G=1,1,1,2
 1777  1739 1750  M=2,2,1 NSL=5,19   MS=1765,1765   G=3,1,3,1
 1781  1749 1755  M=2,2,1 NSL=9,23   MS=1765,1765   G=1,5,5,1
 1782  1750 1759  M=2,2,1 NSL=6,20   MS=1765,1765   G=3,1,1,1
 1787  1755 1757  M=2,2,1 NSL=1,15   MS=1765,1765   G=1,1,1,7
C ===================== BALOK LANTAI 18 ==============================
C ===================== SEJAJAR SUMBU X ==============================
 1801  1801 1802  M=2,2,1 NSL=1,15   MS=1865,1865   G=1,6,6,6   LP=-2,0
 1802  1802 1803  M=2,2,1 NSL=9,23   MS=1865,1865   G=1,4,4,4
 1803  1803 1804  M=2,2,1 NSL=10,24  MS=1865,1865   G=2,1,1,1
 1808  1811 1812  M=2,2,1 NSL=6,20   MS=1865,1865   G=1,4,4,4
 1809  1812 1813  M=2,2,1 NSL=8,22   MS=1865,1865   G=2,1,1,1
 1813  1817 1818  M=2,2,1            MS=1865,1865   G=8,1,1,1
 1822  1827 1828  M=2,2,1 NSL=6,20   MS=1865,1865   G=1,1,4,4
 1824  1833 1834  M=2,2,1 NSL=6,20   MS=1865,1865   G=1,1,4,4
 1826  1839 1840  M=2,2,1            MS=1865,1865   G=8,1,1,1
 1835  1849 1850  M=2,2,1 NSL=6,20   MS=1865,1865   G=1,4,4,4
 1836  1850 1851  M=2,2,1 NSL=8,22   MS=1865,1865   G=2,1,1,1
 1840  1857 1858  M=2,2,1 NSL=1,15   MS=1865,1865   G=1,6,6,6
 1841  1858 1859  M=2,2,1 NSL=9,23   MS=1865,1865   G=1,4,4,4
 1842  1859 1860  M=2,2,1 NSL=10,24  MS=1865,1865   G=2,1,1,1
C ===================== SEJAJAR SUMBU Y ==============================
 1847  1801 1809  M=2,2,1 NSL=1,15   MS=1865,1865   G=1,5,7,1   LP=3,0
 1848  1803 1812  M=2,2,1 NSL=6,20   MS=1865,1865   G=3,1,1,1
 1853  1809 1811  M=2,2,1 NSL=9,23   MS=1865,1865   G=1,1,1,5
 1855  1811 1827  M=2,2,1 NSL=10,24  MS=1865,1865   G=1,5,5,5
 1856  1812 1817  M=2,2,1 NSL=5,19   MS=1865,1865   G=3,1,1,3
 1861  1817 1828  M=2,2,1            MS=1865,1865   G=1,1,2,1
 1863  1824 1830  M=2,2,1            MS=1865,1865   G=1,1,2,1
 1865  1827 1833  M=2,2,1 NSL=10,24  MS=1865,1865   G=1,5,5,5
 1866  1828 1834  M=2,2,1            MS=1865,1865   G=3,1,1,1
 1871  1833 1849  M=2,2,1 NSL=10,24  MS=1865,1865   G=1,5,5,5
 1872  1834 1839  M=2,2,1            MS=1865,1865   G=1,1,1,2
 1874  1836 1846  M=2,2,1            MS=1865,1865   G=1,1,1,2
 1877  1839 1850  M=2,2,1 NSL=5,19   MS=1865,1865   G=3,1,3,1
 1881  1849 1855  M=2,2,1 NSL=9,23   MS=1865,1865   G=1,5,5,1
 1882  1850 1859  M=2,2,1 NSL=6,20   MS=1865,1865   G=3,1,1,1
 1887  1855 1857  M=2,2,1 NSL=1,15   MS=1865,1865   G=1,1,1,7
C ===================== BALOK LANTAI 19 ==============================
C ===================== SEJAJAR SUMBU X ==============================
 1901  1901 1902  M=2,2,1 NSL=1,15   MS=1965,1965   G=1,6,6,6   LP=-2,0
 1902  1902 1903  M=2,2,1 NSL=9,23   MS=1965,1965   G=1,4,4,4
 1903  1903 1904  M=2,2,1 NSL=10,24  MS=1965,1965   G=2,1,1,1
 1908  1911 1912  M=2,2,1 NSL=6,20   MS=1965,1965   G=1,4,4,4
 1909  1912 1913  M=2,2,1 NSL=8,22   MS=1965,1965   G=2,1,1,1
 1913  1917 1918  M=2,2,1            MS=1965,1965   G=8,1,1,1
 1922  1927 1928  M=2,2,1 NSL=6,20   MS=1965,1965   G=1,1,4,4
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 1924  1933 1934  M=2,2,1 NSL=6,20    MS=1965,1965   G=1,1,4,4
 1926  1939 1940  M=2,2,1             MS=1965,1965   G=8,1,1,1
 1935  1949 1950  M=2,2,1 NSL=6,20    MS=1965,1965   G=1,4,4,4
 1936  1950 1951  M=2,2,1 NSL=8,22    MS=1965,1965   G=2,1,1,1
 1940  1957 1958  M=2,2,1 NSL=1,15    MS=1965,1965   G=1,6,6,6
 1941  1958 1959  M=2,2,1 NSL=9,23    MS=1965,1965   G=1,4,4,4
 1942  1959 1960  M=2,2,1 NSL=10,24   MS=1965,1965   G=?,1,1,1
C ========================= SEJAJAR SUMBU Y ==============================
 1947  1901 1909  M=2,2,1 NSL=1,15    MS=1965,1965   G=1,5,7,1    LP=3,0
 1948  1903 1912  M=2,2,1 NSL=6,20    MS=1965,1965   G=3,1,1,1
 1953  1909 1911  M=2,2,1 NSL=9,23    MS=1965,1965   G=1,1,1,5
 1955  1911 1927  M=2,2,1 NSL=10,24   MS=1965,1965   G=1,5,5,5
 1956  1912 1917  M=2,2,1 NSL=5,19    MS=1965,1965   G=3,1,1,3
 1961  1917 1928  M=2,2,1             MS=1965,1965   G=1,1,2,1
 1963  1924 1930  M=2,2,1             MS=1965,1965   G=1,1,2,1
 1965  1927 1933  M=2,2,1 NSL=10,24   MS=1965,1965   G=1,5,5,5
 1966  1928 1934  M=2,2,1             MS=1965,1965   G=3,1,1,1
 1971  1933 1949  M=2,2,1 NSL=10,24   MS=1965,1965   G=1,5,5,5
 1972  1934 1939  M=2,2,1             MS=1965,1965   G=1,1,1,2
 1974  1936 1946  M=2,2,1             MS=1965,1965   G=1,1,1,2
 1977  1939 1950  M=2,2,1 NSL=5,19    MS=1965,1965   G=3,1,3,1
 1981  1949 1955  M=2,2,1 NSL=9,23    MS=1965,1965   G=1,5,5,1
 1982  1950 1959  M=2,2,1 NSL=6,20    MS=1965,1965   G=3,1,1,1
 1987  1955 1957  M=2,2,1 NSL=1,15    MS=1965,1965   G=1,1,1,7
C ========================= BALOK LANTAI 20 =============================
C ========================= SEJAJAR SUMBU X =============================
 2001  2001 2002  M=2,2,1 NSL=1,15    MS=2065,2065   G=1,6,6,6    LP=-2,0
 2002  2002 2003  M=2,2,1 NSL=9,23    MS=2065,2065   G=1,4,4,4
 2003  2003 2004  M=2,2,1 NSL=10,24   MS=2065,2065   G=2,1,1,1
 2008  2011 2012  M=2,2,1 NSL=6,20    MS=2065,2065   G=1,4,4,4
 2009  2012 2013  M=2,2,1 NSL=8,22    MS=2065,2065   G=2,1,1,1
 2013  2017 2018  M=2,2,1             MS=2065,2065   G=8,1,1,1
 2022  2027 2028  M=2,2,1 NSL=6,20    MS=2065,2065   G=1,1,4,4
 2024  2033 2034  M=2,2,1 NSL=6,20    MS=2065,2065   G=1,1,4,4
 2026  2039 2040  M=2,2,1             MS=2065,2065   G=8,1,1,1
 2035  2049 2050  M=2,2,1 NSL=6,20    MS=2065,2065   G=1,4,4,4
 2036  2050 2051  M=2,2,1 NSL=8,22    MS=2065,2065   G=2,1,1,1
 2040  2057 2058  M=2,2,1 NSL=1,15    MS=2065,2065   G=1,6,6,6
 2041  2058 2059  M=2,2,1 NSL=9,23    MS=2065,2065   G=1,4,4,4
 2042  2059 2060  M=2,2,1 NSL=10,24   MS=2065,2065   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
 2047  2001 2009  M=2,2,1 NSL=1,15    MS=2065,2065   G=1,5,7,1    LP=3,0
 2048  2003 2012  M=2,2,1 NSL=6,20    MS=2065,2065   G=3,1,1,1
 2053  2009 2011  M=2,2,1 NSL=9,23    MS=2065,2065   G=1,1,1,5
 2055  2011 2027  M=2,2,1 NSL=10,24   MS=2065,2065   G=1,5,5,5
 2056  2012 2017  M=2,2,1 NSL=5,19    MS=2065,2065   G=3,1,1,3
 2061  2017 2028  M=2,2,1             MS=2065,2065   G=1,1,2,1
 2063  2024 2030  M=2,2,1             MS=2065,2065   G=1,1,2,1
 2065  2027 2033  M=2,2,1 NSL=10,24   MS=2065,2065   G=1,5,5,5
 2066  2028 2034  M=2,2,1             MS=2065,2065   G=3,1,1,1
 2071  2033 2049  M=2,2,1 NSL=10,24   MS=2065,2065   G=1,5,5,5
 2072  2034 2039  M=2,2,1             MS=2065,2065   G=1,1,1,2
 2074  2036 2046  M=2,2,1             MS=2065,2065   G=1,1,1,2
 2077  2039 2050  M=2,2,1 NSL=5,19    MS=2065,2065   G=3,1,3,1
 2081  2049 2055  M=2,2,1 NSL=9,23    MS=2065,2065   G=1,5,5,1
 2082  2050 2059  M=2,2,1 NSL=6,20    MS=2065,2065   G=3,1,1,1
 2087  2055 2057  M=2,2,1 NSL=1,15    MS=2065,2065   G=1,1,1,7
C ========================= BALOK LANTAI 21 =============================
C ========================= SEJAJAR SUMBU X =============================
 2101  2101 2102  M=2,2,1 NSL=1,15    MS=2165,2165   G=1,6,6,6    LP=-2,0
 2102  2102 2103  M=2,2,1 NSL=9,23    MS=2165,2165   G=1,4,4,4
 2103  2103 2104  M=2,2,1 NSL=10,25   MS=2165,2165   G=2,1,1,1
 2108  2111 2112  M=2,2,1 NSL=6,20    MS=2165,2165   G=1,4,4,4
 2109  2112 2113  M=2,2,1 NSL=8,22    MS=2165,2165   G=2,1,1,1
 2113  2117 2118  M=2,2,1             MS=2165,2165   G=8,1,1,1
 2122  2127 2128  M=2,2,1 NSL=6,20    MS=2165,2165   G=1,1,4,4
 2124  2133 2134  M=2,2,1 NSL=6,20    MS=2165,2165   G=1,1,4,4
 2126  2139 2140  M=2,2,1             MS=2165,2165   G=8,1,1,1
 2135  2149 2150  M=2,2,1 NSL=6,20    MS=2165,2165   G=1,4,4,4
 2136  2150 2151  M=2,2,1 NSL=8,22    MS=2165,2165   G=2,1,1,1
 2140  2157 2158  M=2,2,1 NSL=1,15    MS=2165,2165   G=1,6,6,6
 2141  2158 2159  M=2,2,1 NSL=9,23    MS=2165,2165   G=1,4,4,4
 2142  2159 2160  M=2,2,1 NSL=10,24   MS=2165,2165   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
 2147  2101 2109  M=2,2,1 NSL=1,15    MS=2165,2165   G=1,5,7,1    LP=3,0
 2148  2103 2112  M=2,2,1 NSL=6,20    MS=2165,2165   G=3,1,1,1
 2153  2109 2111  M=2,2,1 NSL=9,23    MS=2165,2165   G=1,1,1,5
 2155  2111 2127  M=2,2,1 NSL=10,24   MS=2165,2165   G=1,5,5,5
 2156  2112 2117  M=2,2,1 NSL=5,19    MS=2165,2165   G=3,1,1,3
 2161  2117 2128  M=2,2,1             MS=2165,2165   G=1,1,2,1
 2163  2124 2130  M=2,2,1             MS=2165,2165   G=1,1,2,1
```

```
2165   2127 2133   M=2,2,1 NSL=10,24   MS=2165,2165    G=1,5,5,5
2166   2128 2134   M=2,2,1             MS=2165,2165    G=3,1,1,1
2171   2133 2149   M=2,2,1 NSL=10,24   MS=2165,2165    G=1,5,5,5
2172   2134 2139   M=2,2,1             MS=2165,2165    G=1,1,1,2
2174   2136 2146   M=2,2,1             MS=2165,2165    G=1,1,1,2
2177   2139 2150   M=2,2,1 NSL=5,19    MS=2165,2165    G=3,1,3,1
2181   2149 2155   M=2,2,1 NSL=9,23    MS=2165,2165    G=1,5,5,1
2182   2150 2159   M=2,2,1 NSL=6,20    MS=2165,2165    G=3,1,1,1
2187   2155 2157   M=2,2,1 NSL=1,15    MS=2165,2165    G=1,1,1,7
C ======================= BALOK LANTAI 22 ==========================
C ======================= SEJAJAR SUMBU X ==========================
2201   2201 2202   M=2,2,1 NSL=1,15    MS=2265,2265    G=1,6,6,6   LP=-2,0
2202   2202 2203   M=2,2,1 NSL=9,23    MS=2265,2265    G=1,4,4,4
2203   2203 2204   M=2,2,1 NSL=10,24   MS=2265,2265    G=2,1,1,1
2208   2211 2212   M=2,2,1 NSL=6,20    MS=2265,2265    G=1,4,4,4
2209   2212 2213   M=2,2,1 NSL=8,22    MS=2265,2265    G=2,1,1,1
2213   2217 2218   M=2,2,1             MS=2265,2265    G=8,1,1,1
2222   2227 2228   M=2,2,1 NSL=6,20    MS=2265,2265    G=1,1,4,4
2224   2233 2234   M=2,2,1 NSL=6,20    MS=2265,2265    G=1,1,4,4
2226   2239 2240   M=2,2,1             MS=2265,2265    G=8,1,1,1
2235   2249 2250   M=2,2,1 NSL=6,20    MS=2265,2265    G=1,4,4,4
2236   2250 2251   M=2,2,1 NSL=8,22    MS=2265,2265    G=2,1,1,1
2240   2257 2258   M=2,2,1 NSL=1,15    MS=2265,2265    G=1,6,6,6
2241   2258 2259   M=2,2,1 NSL=9,23    MS=2265,2265    G=1,4,4,4
2242   2259 2260   M=2,2,1 NSL=10,24   MS=2265,2265    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y ==========================
2247   2201 2209   M=2,2,1 NSL=1,15    MS=2265,2265    G=1,5,7,1   LP=3,0
2248   2203 2212   M=2,2,1 NSL=6,20    MS=2265,2265    G=3,1,1,1
2253   2209 2211   M=2,2,1 NSL=9,23    MS=2265,2265    G=1,1,1,5
2255   2211 2227   M=2,2,1 NSL=10,24   MS=2265,2265    G=1,5,5,5
2256   2212 2217   M=2,2,1 NSL=5,19    MS=2265,2265    G=3,1,1,3
2261   2217 2228   M=2,2,1             MS=2265,2265    G=1,1,2,1
2263   2224 2230   M=2,2,1             MS=2265,2265    G=1,1,2,1
2265   2227 2233   M=2,2,1 NSL=10,24   MS=2265,2265    G=1,5,5,5
2266   2228 2234   M=2,2,1             MS=2265,2265    G=3,1,1,1
2271   2233 2249   M=2,2,1 NSL=10,24   MS=2265,2265    G=1,5,5,5
2272   2234 2239   M=2,2,1             MS=2265,2265    G=1,1,1,2
2274   2236 2246   M=2,2,1             MS=2265,2265    G=1,1,1,2
2277   2239 2250   M=2,2,1 NSL=5,19    MS=2265,2265    G=3,1,3,1
2281   2249 2255   M=2,2,1 NSL=9,23    MS=2265,2265    G=1,5,5,1
2282   2250 2259   M=2,2,1 NSL=6,20    MS=2265,2265    G=3,1,1,1
2287   2255 2257   M=2,2,1 NSL=1,15    MS=2265,2265    G=1,1,1,7
C ======================= BALOK LANTAI 23 ==========================
C ======================= SEJAJAR SUMBU X ==========================
2301   2301 2302   M=2,2,1 NSL=1,15    MS=2365,2365    G=1,6,6,6   LP=-2,0
2302   2302 2303   M=2,2,1 NSL=9,23    MS=2365,2365    G=1,4,4,4
2303   2303 2304   M=2,2,1 NSL=10,24   MS=2365,2365    G=2,1,1,1
2308   2311 2312   M=2,2,1 NSL=6,20    MS=2365,2365    G=1,4,4,4
2309   2312 2313   M=2,2,1 NSL=8,22    MS=2365,2365    G=2,1,1,1
2313   2317 2318   M=2,2,1             MS=2365,2365    G=8,1,1,1
2322   2327 2328   M=2,2,1 NSL=6,20    MS=2365,2365    G=1,1,4,4
2324   2333 2334   M=2,2,1 NSL=6,20    MS=2365,2365    G=1,1,4,4
2326   2339 2340   M=2,2,1             MS=2365,2365    G=8,1,1,1
2335   2349 2350   M=2,2,1 NSL=6,20    MS=2365,2365    G=1,4,4,4
2336   2350 2351   M=2,2,1 NSL=8,22    MS=2365,2365    G=2,1,1,1
2340   2357 2358   M=2,2,1 NSL=1,15    MS=2365,2365    G=1,6,6,6
2341   2358 2359   M=2,2,1 NSL=9,23    MS=2365,2365    G=1,4,4,4
2342   2359 2360   M=2,2,1 NSL=10,24   MS=2365,2365    G=2,1,1,1
C ======================= SEJAJAR SUMBU Y ==========================
2347   2301 2309   M=2,2,1 NSL=1,15    MS=2365,2365    G=1,5,7,1   LP=3,0
2348   2303 2312   M=2,2,1 NSL=6,20    MS=2365,2365    G=3,1,1,1
2353   2309 2311   M=2,2,1 NSL=9,23    MS=2365,2365    G=1,1,1,5
2355   2311 2327   M=2,2,1 NSL=10,24   MS=2365,2365    G=1,5,5,5
2356   2312 2317   M=2,2,1 NSL=5,19    MS=2365,2365    G=3,1,1,3
2361   2317 2328   M=2,2,1             MS=2365,2365    G=1,1,2,1
2363   2324 2330   M=2,2,1             MS=2365,2365    G=1,1,2,1
2365   2327 2333   M=2,2,1 NSL=10,24   MS=2365,2365    G=1,5,5,5
2366   2328 2334   M=2,2,1             MS=2365,2365    G=3,1,1,1
2371   2333 2349   M=2,2,1 NSL=10,24   MS=2365,2365    G=1,5,5,5
2372   2334 2339   M=2,2,1             MS=2365,2365    G=1,1,1,2
2374   2336 2346   M=2,2,1             MS=2365,2365    G=1,1,1,2
2377   2339 2350   M=2,2,1 NSL=5,19    MS=2365,2365    G=3,1,3,1
2381   2349 2355   M=2,2,1 NSL=9,23    MS=2365,2365    G=1,5,5,1
2382   2350 2359   M=2,2,1 NSL=6,20    MS=2365,2365    G=3,1,1,1
2387   2355 2357   M=2,2,1 NSL=1,15    MS=2365,2365    G=1,1,1,7
C ======================= BALOK LANTAI 24 ==========================
C ======================= SEJAJAR SUMBU X ==========================
2401   2401 2402   M=2,2,1 NSL=1,15    MS=2465,2465    G=1,6,6,6   LP=-2,0
2402   2402 2403   M=2,2,1 NSL=9,23    MS=2465,2465    G=1,4,4,4
2403   2403 2404   M=2,2,1 NSL=10,24   MS=2465,2465    G=2,1,1,1
2408   2411 2412   M=2,2,1 NSL=6,20    MS=2465,2465    G=1,4,4,4
```

```
 2409  2412 2413  M=2,2,1 NSL=8,22   MS=2465,2465   G=2,1,1,1
 2413  2417 2418  M=2,2,1           MS=2465,2465   G=8,1,1,1
 2422  2427 2428  M=2,2,1 NSL=6,20   MS=2465,2465   G=1,1,4,4
 2424  2433 2434  M=2,2,1 NSL=6,20   MS=2465,2465   G=1,1,4,4
 2426  2439 2440  M=2,2,1           MS=2465,2465   G=8,1,1,1
 2435  2449 2450  M=2,2,1 NSL=6,20   MS=2465,2465   G=1,4,4,4
 2436  2450 2451  M=2,2,1 NSL=8,22   MS=2465,2465   G=2,1,1,1
 2440  2457 2458  M=2,2,1 NSL=1,15   MS=2465,2465   G=1,6,6,6
 2441  2458 2459  M=2,2,1 NSL=9,23   MS=2465,2465   G=1,4,4,4
 2442  2459 2460  M=2,2,1 NSL=10,24  MS=2465,2465   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
 2447  2401 2409  M=2,2,1 NSL=1,15   MS=2465,2465   G=1,5,7,1    LP=3,0
 2448  2403 2412  M=2,2,1 NSL=6,20   MS=2465,2465   G=3,1,1,1
 2453  2409 2411  M=2,2,1 NSL=9,23   MS=2465,2465   G=1,1,1,5
 2455  2411 2427  M=2,2,1 NSL=10,24  MS=2465,2465   G=1,5,5,5
 2456  2412 2417  M=2,2,1 NSL=5,19   MS=2465,2465   G=3,1,1,3
 2461  2417 2428  M=2,2,1           MS=2465,2465   G=1,1,2,1
 2463  2424 2430  M=2,2,1           MS=2465,2465   G=1,1,2,1
 2465  2427 2433  M=2,2,1 NSL=10,24  MS=2465,2465   G=1,5,5,5
 2466  2428 2434  M=2,2,1           MS=2465,2465   G=3,1,1,1
 2471  2433 2449  M=2,2,1 NSL=10,24  MS=2465,2465   G=1,5,5,5
 2472  2434 2439  M=2,2,1           MS=2465,2465   G=1,1,1,2
 2474  2436 2446  M=2,2,1           MS=2465,2465   G=1,1,1,2
 2477  2439 2450  M=2,2,1 NSL=5,19   MS=2465,2465   G=3,1,3,1
 2481  2449 2455  M=2,2,1 NSL=9,23   MS=2465,2465   G=1,5,5,1
 2482  2450 2459  M=2,2,1 NSL=6,20   MS=2465,2465   G=3,1,1,1
 2487  2455 2457  M=2,2,1 NSL=1,15   MS=2465,2465   G=1,1,1,7
C ========================= BALOK LANTAI 25 =============================
C ========================= SEJAJAR SUMBU X =============================
 2501  2501 2502  M=2,2,1 NSL=1,15   MS=2565,2565   G=1,6,6,6    LP=-2,0
 2502  2502 2503  M=2,2,1 NSL=9,23   MS=2565,2565   G=1,4,4,4
 2503  2503 2504  M=2,2,1 NSL=10,24  MS=2565,2565   G=2,1,1,1
 2508  2511 2512  M=2,2,1 NSL=6,20   MS=2565,2565   G=1,4,4,4
 2509  2512 2513  M=2,2,1 NSL=8,22   MS=2565,2565   G=2,1,1,1
 2513  2517 2518  M=2,2,1           MS=2565,2565   G=8,1,1,1
 2522  2527 2528  M=2,2,1 NSL=6,20   MS=2565,2565   G=1,1,4,4
 2524  2533 2534  M=2,2,1 NSL=6,20   MS=2565,2565   G=1,1,4,4
 2526  2539 2540  M=2,2,1           MS=2565,2565   G=8,1,1,1
 2535  2549 2550  M=2,2,1 NSL=6,20   MS=2565,2565   G=1,4,4,4
 2536  2550 2551  M=2,2,1 NSL=8,22   MS=2565,2565   G=2,1,1,1
 2540  2557 2558  M=2,2,1 NSL=1,15   MS=2565,2565   G=1,6,6,6
 2541  2558 2559  M=2,2,1 NSL=9,23   MS=2565,2565   G=1,4,4,4
 2542  2559 2560  M=2,2,1 NSL=10,24  MS=2565,2565   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
 2547  2501 2509  M=2,2,1 NSL=1,15   MS=2565,2565   G=1,5,7,1    LP=3,0
 2548  2503 2512  M=2,2,1 NSL=6,20   MS=2565,2565   G=3,1,1,1
 2553  2509 2511  M=2,2,1 NSL=9,23   MS=2565,2565   G=1,1,1,5
 2555  2511 2527  M=2,2,1 NSL=10,24  MS=2565,2565   G=1,5,5,5
 2556  2512 2517  M=2,2,1 NSL=5,19   MS=2565,2565   G=3,1,1,3
 2561  2517 2528  M=2,2,1           MS=2565,2565   G=1,1,2,1
 2563  2524 2530  M=2,2,1           MS=2565,2565   G=1,1,2,1
 2565  2527 2533  M=2,2,1 NSL=10,24  MS=2565,2565   G=1,5,5,5
 2566  2528 2534  M=2,2,1           MS=2565,2565   G=3,1,1,1
 2571  2533 2549  M=2,2,1 NSL=10,24  MS=2565,2565   G=1,5,5,5
 2572  2534 2539  M=2,2,1           MS=2565,2565   G=1,1,1,2
 2574  2536 2546  M=2,2,1           MS=2565,2565   G=1,1,1,2
 2577  2539 2550  M=2,2,1 NSL=5,19   MS=2565,2565   G=3,1,3,1
 2581  2549 2555  M=2,2,1 NSL=9,23   MS=2565,2565   G=1,5,5,1
 2582  2550 2559  M=2,2,1 NSL=6,20   MS=2565,2565   G=3,1,1,1
 2587  2555 2557  M=2,2,1 NSL=1,15   MS=2565,2565   G=1,1,1,7
C ========================= BALOK LANTAI 26 =============================
C ========================= SEJAJAR SUMBU X =============================
 2601  2601 2602  M=2,2,1 NSL=1,15   MS=2665,2665   G=1,6,6,6    LP=-2,0
 2602  2602 2603  M=2,2,1 NSL=9,23   MS=2665,2665   G=1,4,4,4
 2603  2603 2604  M=2,2,1 NSL=10,24  MS=2665,2665   G=2,1,1,1
 2608  2611 2612  M=2,2,1 NSL=6,20   MS=2665,2665   G=1,4,4,4
 2609  2612 2613  M=2,2,1 NSL=8,22   MS=2665,2665   G=2,1,1,1
 2613  2617 2618  M=2,2,1           MS=2665,2665   G=8,1,1,1
 2622  2627 2628  M=2,2,1 NSL=6,20   MS=2665,2665   G=1,1,4,4
 2624  2633 2634  M=2,2,1 NSL=6,20   MS=2665,2665   G=1,1,4,4
 2626  2639 2640  M=2,2,1           MS=2665,2665   G=8,1,1,1
 2635  2649 2650  M=2,2,1 NSL=6,20   MS=2665,2665   G=1,4,4,4
 2636  2650 2651  M=2,2,1 NSL=8,22   MS=2665,2665   G=2,1,1,1
 2640  2657 2658  M=2,2,1 NSL=1,15   MS=2665,2665   G=1,6,6,6
 2641  2658 2659  M=2,2,1 NSL=9,23   MS=2665,2665   G=1,4,4,4
 2642  2659 2660  M=2,2,1 NSL=10,24  MS=2665,2665   G=2,1,1,1
C ========================= SEJAJAR SUMBU Y =============================
 2647  2601 2609  M=2,2,1 NSL=1,15   MS=2665,2665   G=1,5,7,1    LP=3,0
 2648  2603 2612  M=2,2,1 NSL=6,20   MS=2665,2665   G=3,1,1,1
 2653  2609 2611  M=2,2,1 NSL=9,23   MS=2665,2665   G=1,1,1,5
 2655  2611 2627  M=2,2,1 NSL=10,24  MS=2665,2665   G=1,5,5,5
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2656   2612 2617   M=2,2,1 NSL=5,19    MS=2665,2665    G=3,1,1,3
2661   2617 2628   M=2,2,1             MS=2665,2665    G=1,1,2,1
2663   2624 2630   M=2,2,1             MS=2665,2665    G=1,1,2,1
2665   2627 2633   M=2,2,1 NSL=10,24   MS=2665,2665    G=1,5,5,5
2666   2628 2634   M=2,2,1             MS=2665,2665    G=3,1,1,1
2671   2633 2649   M=2,2,1 NSL=10,24   MS=2665,2665    G=1,5,5,5
2672   2634 2639   M=2,2,1             MS=2665,2665    G=1,1,1,2
2674   2636 2646   M=2,2,1             MS=2665,2665    G=1,1,1,2
2677   2639 2650   M=2,2,1 NSL=5,19    MS=2665,2665    G=3,1,3,1
2681   2649 2655   M=2,2,1 NSL=9,23    MS=2665,2665    G=1,5,5,1
2682   2650 2659   M=2,2,1 NSL=6,20    MS=2665,2665    G=3,1,1,1
2687   2655 2657   M=2,2,1 NSL=1,15    MS=2665,2665    G=1,1,1,7
C ==================== BALOK LANTAI 27 ==========================
C ==================== SEJAJAR SUMBU X ==========================
2701   2701 2702   M=2,2,1 NSL=1,15    MS=2765,2765    G=1,6,6,6    LP=-2,0
2702   2702 2703   M=2,2,1 NSL=9,23    MS=2765,2765    G=1,4,4,4
2703   2703 2704   M=2,2,1 NSL=10,24   MS=2765,2765    G=2,1,1,1
2708   2711 2712   M=2,2,1 NSL=6,20    MS=2765,2765    G=1,4,4,4
2709   2712 2713   M=2,2,1 NSL=8,22    MS=2765,2765    G=2,1,1,1
2713   2717 2718   M=2,2,1             MS=2765,2765    G=8,1,1,1
2722   2727 2728   M=2,2,1 NSL=6,20    MS=2765,2765    G=1,1,4,4
2724   2733 2734   M=2,2,1 NSL=6,20    MS=2765,2765    G=1,1,4,4
2726   2739 2740   M=2,2,1             MS=2765,2765    G=8,1,1,1
2735   2749 2750   M=2,2,1 NSL=6,20    MS=2765,2765    G=1,4,4,4
2736   2750 2751   M=2,2,1 NSL=8,22    MS=2765,2765    G=2,1,1,1
2740   2757 2758   M=2,2,1 NSL=1,15    MS=2765,2765    G=1,6,6,6
2741   2758 2759   M=2,2,1 NSL=9,23    MS=2765,2765    G=1,4,4,4
2742   2759 2760   M=2,2,1 NSL=10,24   MS=2765,2765    G=2,1,1,1
C ==================== SEJAJAR SUMBU Y ==========================
2747   2701 2709   M=2,2,1 NSL=1,15    MS=2765,2765    G=1,5,7,1    LP=3,0
2748   2703 2712   M=2,2,1 NSL=6,20    MS=2765,2765    G=3,1,1,1
2753   2709 2711   M=2,2,1 NSL=9,23    MS=2765,2765    G=1,1,1,5
2755   2711 2727   M=2,2,1 NSL=10,24   MS=2765,2765    G=1,5,5,5
2756   2712 2717   M=2,2,1 NSL=5,19    MS=2765,2765    G=3,1,1,3
2761   2717 2728   M=2,2,1             MS=2765,2765    G=1,1,2,1
2763   2724 2730   M=2,2,1             MS=2765,2765    G=1,1,2,1
2765   2727 2733   M=2,2,1 NSL=10,24   MS=2765,2765    G=1,5,5,5
2766   2728 2734   M=2,2,1             MS=2765,2765    G=3,1,1,1
2771   2733 2749   M=2,2,1 NSL=10,24   MS=2765,2765    G=1,5,5,5
2772   2734 2739   M=2,2,1             MS=2765,2765    G=1,1,1,2
2774   2736 2746   M=2,2,1             MS=2765,2765    G=1,1,1,2
2777   2739 2750   M=2,2,1 NSL=5,19    MS=2765,2765    G=3,1,3,1
2781   2749 2755   M=2,2,1 NSL=9,23    MS=2765,2765    G=1,5,5,1
2782   2750 2759   M=2,2,1 NSL=6,20    MS=2765,2765    G=3,1,1,1
2787   2755 2757   M=2,2,1 NSL=1,15    MS=2765,2765    G=1,1,1,7
C ==================== BALOK LANTAI 28 ==========================
C ==================== SEJAJAR SUMBU X ==========================
2801   2801 2802   M=2,2,1 NSL=1,15    MS=2865,2865    G=1,6,6,6    LP=-2,0
2802   2802 2803   M=2,2,1 NSL=9,23    MS=2865,2865    G=1,4,4,4
2803   2803 2804   M=2,2,1 NSL=10,24   MS=2865,2865    G=2,1,1,1
2808   2811 2812   M=2,2,1 NSL=6,20    MS=2865,2865    G=1,4,4,4
2809   2812 2813   M=2,2,1 NSL=8,22    MS=2865,2865    G=2,1,1,1
2813   2817 2818   M=2,2,1             MS=2865,2865    G=8,1,1,1
2822   2827 2828   M=2,2,1 NSL=6,20    MS=2865,2865    G=1,1,4,4
2824   2833 2834   M=2,2,1 NSL=6,20    MS=2865,2865    G=1,1,4,4
2826   2839 2840   M=2,2,1             MS=2865,2865    G=8,1,1,1
2835   2849 2850   M=2,2,1 NSL=6,20    MS=2865,2865    G=1,4,4,4
2836   2850 2851   M=2,2,1 NSL=8,22    MS=2865,2865    G=2,1,1,1
2840   2857 2858   M=2,2,1 NSL=1,15    MS=2865,2865    G=1,6,6,6
2841   2858 2859   M=2,2,1 NSL=9,23    MS=2865,2865    G=1,4,4,4
2842   2859 2860   M=2,2,1 NSL=10,24   MS=2865,2865    G=2,1,1,1
C ==================== SEJAJAR SUMBU Y ==========================
2847   2801 2809   M=2,2,1 NSL=1,15    MS=2865,2865    G=1,5,7,1    LP=3,0
2848   2803 2812   M=2,2,1 NSL=6,20    MS=2865,2865    G=3,1,1,1
2853   2809 2811   M=2,2,1 NSL=9,23    MS=2865,2865    G=1,1,1,5
2855   2811 2827   M=2,2,1 NSL=10,24   MS=2865,2865    G=1,5,5,5
2856   2812 2817   M=2,2,1 NSL=5,19    MS=2865,2865    G=3,1,1,3
2861   2817 2828   M=2,2,1             MS=2865,2865    G=1,1,2,1
2863   2824 2830   M=2,2,1             MS=2865,2865    G=1,1,2,1
2865   2827 2833   M=2,2,1 NSL=10,24   MS=2865,2865    G=1,5,5,5
2866   2828 2834   M=2,2,1             MS=2865,2865    G=3,1,1,1
2871   2833 2849   M=2,2,1 NSL=10,24   MS=2865,2865    G=1,5,5,5
2872   2834 2839   M=2,2,1             MS=2865,2865    G=1,1,1,2
2874   2836 2846   M=2,2,1             MS=2865,2865    G=1,1,1,2
2877   2839 2850   M=2,2,1 NSL=5,19    MS=2865,2865    G=3,1,3,1
2881   2849 2855   M=2,2,1 NSL=9,23    MS=2865,2865    G=1,5,5,1
2882   2850 2859   M=2,2,1 NSL=6,20    MS=2865,2865    G=3,1,1,1
2887   2855 2857   M=2,2,1 NSL=1,15    MS=2865,2865    G=1,1,1,7
C ==================== BALOK LANTAI 29 ==========================
C ==================== SEJAJAR SUMBU X ==========================
2901   2901 2902   M=2,2,1 NSL=1,15    MS=2965,2965    G=1,6,6,6    LP=-2,0
```

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2902   2902 2903   M=2,2,1 NSL=9,23    MS=2965,2965     G=1,4,4,4
2903   2903 2904   M=2,2,1 NSL=10,24   MS=2965,2965     G=2,1,1,1
2908   2911 2912   M=2,2,1 NSL=6,20    MS=2965,2965     G=1,4,4,4
2909   2912 2913   M=2,2,1 NSL=8,22    MS=2965,2965     G=2,1,1,1
2913   2917 2918   M=2,2,1             MS=2965,2965     G=8,1,1,1
2922   2927 2928   M=2,2,1 NSL=6,20    MS=2965,2965     G=1,1,4,4
2924   2933 2934   M=2,2,1 NSL=6,20    MS=2965,2965     G=1,1,4,4
2926   2939 2940   M=2,2,1             MS=2965,2965     G=8,1,1,1
2935   2949 2950   M=2,2,1 NSL=6,20    MS=2965,2965     G=1,4,4,4
2936   2950 2951   M=2,2,1 NSL=8,22    MS=2965,2965     G=2,1,1,1
2940   2957 2958   M=2,2,1 NSL=1,15    MS=2965,2965     G=1,6,6,6
2941   2958 2959   M=2,2,1 NSL=9,23    MS=2965,2965     G=1,4,4,4
2942   2959 2960   M=2,2,1 NSL=10,24   MS=2965,2965     G=2,1,1,1
C ===================== SEJAJAR SUMBU Y =========================
2947   2901 2909   M=2,2,1 NSL=1,15    MS=2965,2965     G=1,5,7,1   LP=3,0
2948   2903 2912   M=2,2,1 NSL=6,20    MS=2965,2965     G=3,1,1,1
2953   2909 2911   M=2,2,1 NSL=9,23    MS=2965,2965     G=1,1,1,5
2955   2911 2927   M=2,2,1 NSL=10,24   MS=2965,2965     G=1,5,5,5
2956   2912 2917   M=2,2,1 NSL=5,19    MS=2965,2965     G=3,1,1,3
2961   2917 2928   M=2,2,1             MS=2965,2965     G=1,1,2,1
2963   2924 2930   M=2,2,1             MS=2965,2965     G=1,1,2,1
2965   2927 2933   M=2,2,1 NSL=10,24   MS=2965,2965     G=1,5,5,5
2966   2928 2934   M=2,2,1             MS=2965,2965     G=3,1,1,1
2971   2933 2949   M=2,2,1 NSL=10,24   MS=2965,2965     G=1,5,5,5
2972   2934 2939   M=2,2,1             MS=2965,2965     G=1,1,1,2
2974   2936 2946   M=2,2,1             MS=2965,2965     G=1,1,1,2
2977   2939 2950   M=2,2,1 NSL=5,19    MS=2965,2965     G=3,1,3,1
2981   2949 2955   M=2,2,1 NSL=9,23    MS=2965,2965     G=1,5,5,1
2982   2950 2959   M=2,2,1 NSL=6,20    MS=2965,2965     G=3,1,1,1
2987   2955 2957   M=2,2,1 NSL=1,15    MS=2965,2965     G=1,1,1,7
C ===================== BALOK LANTAI ATAP =========================
C ===================== SEJAJAR SUMBU X =========================
3001   3001 3002   M=2,2,1 NSL=29,43   MS=3065,3065     G=1,6,6,6   LP=-2,0
3002   3002 3003   M=2,2,1 NSL=37,51   MS=3065,3065     G=1,4,4,4
3003   3003 3004   M=2,2,1 NSL=38,52   MS=3065,3065     G=2,1,1,1
3008   3011 3012   M=2,2,1 NSL=34,48   MS=3065,3065     G=1,4,4,4
3009   3012 3013   M=2,2,1 NSL=36,50   MS=3065,3065     G=2,1,1,1
3013   3017 3018   M=2,2,1             MS=3065,3065     G=8,1,1,1
3022   3027 3028   M=2,2,1 NSL=34,48   MS=3065,3065     G=1,1,4,4
3024   3033 3034   M=2,2,1 NSL=34,48   MS=3065,3065     G=1,1,4,4
3026   3039 3040   M=2,2,1             MS=3065,3065     G=8,1,1,1
3035   3049 3050   M=2,2,1 NSL=34,48   MS=3065,3065     G=1,4,4,4
3036   3050 3051   M=2,2,1 NSL=36,50   MS=3065,3065     G=2,1,1,1
3040   3057 3058   M=2,2,1 NSL=29,43   MS=3065,3065     G=1,6,6,6
3041   3058 3059   M=2,2,1 NSL=37,51   MS=3065,3065     G=1,4,4,4
3042   3059 3060   M=2,2,1 NSL=38,52   MS=3065,3065     G=2,1,1,1
C ===================== SEJAJAR SUMBU Y =========================
3047   3001 3009   M=2,2,1 NSL=29,43   MS=3065,3065     G=1,5,7,1   LP=3,0
3048   3003 3012   M=2,2,1 NSL=34,48   MS=3065,3065     G=3,1,1,1
3053   3009 3011   M=2,2,1 NSL=37,51   MS=3065,3065     G=1,1,1,5
3055   3011 3027   M=2,2,1 NSL=38,52   MS=3065,3065     G=1,5,5,5
3056   3012 3017   M=2,2,1 NSL=33,47   MS=3065,3065     G=3,1,1,3
3061   3017 3028   M=2,2,1             MS=3065,3065     G=1,1,2,1
3063   3024 3030   M=2,2,1             MS=3065,3065     G=1,1,2,1
3065   3027 3033   M=2,2,1 NSL=38,52   MS=3065,3065     G=1,5,5,5
3066   3028 3034   M=2,2,1             MS=3065,3065     G=3,1,1,1
3071   3033 3049   M=2,2,1 NSL=38,52   MS=3065,3065     G=1,5,5,5
3072   3034 3039   M=2,2,1             MS=3065,3065     G=1,1,1,2
3074   3036 3046   M=2,2,1             MS=3065,3065     G=1,1,1,2
3077   3039 3050   M=2,2,1 NSL=33,47   MS=3065,3065     G=3,1,3,1
3081   3049 3055   M=2,2,1 NSL=37,51   MS=3065,3065     G=1,5,5,1
3082   3050 3059   M=2,2,1 NSL=34,48   MS=3065,3065     G=3,1,1,1
3087   3055 3057   M=2,2,1 NSL=29,43   MS=3065,3065     G=1,1,1,7
C ===================== KOLOM LANTAI 1 =========================
3101     1   101   M=3                 MS=0,189         G=19,1,1,1  LP=-2,0
3121    21   121   M=6                 MS=0,189         G=9,1,1,1
3131    31   131   M=3                 MS=0,189         G=2,1,1,1
3134    34   134   M=6                 MS=0,189         G=3,1,1,1
3138    38   138   M=3                 MS=0,189         G=2,1,1,1
3141    41   141   M=3                 MS=0,189         G=2,1,1,1
3144    44   144   M=6                 MS=0,189         G=3,1,1,1
3148    48   148   M=3                 MS=0,189         G=2,1,1,1
3151    51   151   M=6                 MS=0,189         G=9,1,1,1
3161    61   161   M=3                 MS=0,189         G=27,1,1,1
C ===================== KOLOM LANTAI 2 =========================
3201   101   201   M=3                 MS=189,289       G=19,1,1,1
3221   121   221   M=6                 MS=189,289       G=9,1,1,1
3231   131   231   M=3                 MS=189,289       G=2,1,1,1
3234   134   234   M=6                 MS=189,289       G=3,1,1,1
3238   138   238   M=3                 MS=189,289       G=2,1,1,1
3241   141   241   M=3                 MS=189,289       G=2,1,1,1
```

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3244   144   244   M=6   MS=189,289   G=3,1,1,1
3248   148   248   M=3   MS=189,289   G=2,1,1,1
3251   151   251   M=6   MS=189,289   G=9,1,1,1
3261   161   261   M=3   MS=189,289   G=27,1,1,1
C ================= KOLOM LANTAI 3 ===============================
3301   201   301   M=3   MS=289,389   G=19,1,1,1
3321   221   321   M=6   MS=289,389   G=9,1,1,1
3331   231   331   M=3   MS=289,389   G=2,1,1,1
3334   234   334   M=6   MS=289,389   G=3,1,1,1
3338   238   338   M=3   MS=289,389   G=2,1,1,1
3341   241   341   M=3   MS=289,389   G=2,1,1,1
3344   244   344   M=6   MS=289,389   G=3,1,1,1
3348   248   348   M=3   MS=289,389   G=2,1,1,1
3351   251   351   M=6   MS=289,389   G=9,1,1,1
3361   261   361   M=3   MS=289,389   G=27,1,1,1
C ================= KOLOM LANTAI 4 ===============================
3401   301   401   M=3   MS=389,465   G=7,1,1,1
3409   310   409   M=3   MS=389,465   G=1,1,1,1
3411   314   411   M=3   MS=389,465   G=5,1,1,1
3417   321   417   M=6   MS=389,465   G=9,1,1,1
3427   333   427   M=3   MS=389,465   G=1,5,5,5
3428   334   428   M=6   MS=389,465   G=3,1,1,1
3433   343   433   M=3   MS=389,465   G=1,5,5,5
3434   344   434   M=3   MS=389,465   G=3,1,1,1
3439   351   439   M=6   MS=389,465   G=9,1,1,1
3449   362   449   M=3   MS=389,465   G=5,1,1,1
3455   370   455   M=3   MS=389,465   G=1,1,1,1
3457   373   457   M=3   MS=389,465   G=7,1,1,1
C ================= KOLOM LANTAI 5 ===============================
3501   401   501   M=3   MS=465,565   G=15,1,1,1
3517   417   517   M=6   MS=465,565   G=9,1,1,1
3527   427   527   M=3   MS=465,565   G=1,5,5,5
3528   428   528   M=6   MS=465,565   G=3,1,1,1
3533   433   533   M=3   MS=465,565   G=1,5,5,5
3534   434   534   M=6   MS=465,565   G=3,1,1,1
3539   439   539   M=6   MS=465,565   G=9,1,1,1
3549   449   549   M=3   MS=465,565   G=15,1,1,1
C ================= KOLOM LANTAI 6 ===============================
3601   501   601   M=3   MS=565,665   G=15,1,1,1
3617   517   617   M=6   MS=565,665   G=9,1,1,1
3627   527   627   M=3   MS=565,665   G=1,5,5,5
3628   528   628   M=6   MS=565,665   G=3,1,1,1
3633   533   633   M=3   MS=565,665   G=1,5,5,5
3634   534   634   M=6   MS=565,665   G=3,1,1,1
3639   539   639   M=6   MS=565,665   G=9,1,1,1
3649   549   649   M=3   MS=565,665   G=15,1,1,1
C ================= KOLOM LANTAI 7 ===============================
3701   601   701   M=3   MS=665,765   G=15,1,1,1
3717   617   717   M=6   MS=665,765   G=9,1,1,1
3727   627   727   M=3   MS=665,765   G=1,5,5,5
3728   628   728   M=6   MS=665,765   G=3,1,1,1
3733   633   733   M=3   MS=665,765   G=1,5,5,5
3734   634   734   M=6   MS=665,765   G=3,1,1,1
3739   639   739   M=6   MS=665,765   G=9,1,1,1
3749   649   749   M=3   MS=665,765   G=15,1,1,1
C ================= KOLOM LANTAI 8 ===============================
3801   701   801   M=3   MS=765,865   G=15,1,1,1
3817   717   817   M=6   MS=765,865   G=9,1,1,1
3827   727   827   M=3   MS=765,865   G=1,5,5,5
3828   728   828   M=6   MS=765,865   G=3,1,1,1
3833   733   833   M=3   MS=765,865   G=1,5,5,5
3834   734   834   M=6   MS=765,865   G=3,1,1,1
3839   739   839   M=6   MS=765,865   G=9,1,1,1
3849   749   849   M=3   MS=765,865   G=15,1,1,1
C ================= KOLOM LANTAI 9 ===============================
3901   801   901   M=3   MS=865,965   G=15,1,1,1
3917   817   917   M=6   MS=865,965   G=9,1,1,1
3927   827   927   M=3   MS=865,965   G=1,5,5,5
3928   828   928   M=6   MS=865,965   G=3,1,1,1
3933   833   933   M=3   MS=865,965   G=1,5,5,5
3934   834   934   M=6   MS=865,965   G=3,1,1,1
3939   839   939   M=6   MS=865,965   G=9,1,1,1
3949   849   949   M=3   MS=865,965   G=15,1,1,1
C ================= KOLOM LANTAI 10 ==============================
4001   901   1001   M=3   MS=965,1065   G=15,1,1,1
4017   917   1017   M=6   MS=965,1065   G=9,1,1,1
4027   927   1027   M=3   MS=965,1065   G=1,5,5,5
4028   928   1028   M=6   MS=965,1065   G=3,1,1,1
4033   933   1033   M=3   MS=965,1065   G=1,5,5,5
4034   934   1034   M=6   MS=965,1065   G=3,1,1,1
4039   939   1039   M=6   MS=965,1065   G=9,1,1,1
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    4049    949   1049    M=3      MS=965,1065    G=15,1,1,1
C ================= KOLOM LANTAI 11 =============================
    4101   1001   1101    M=4      MS=1065,1165   G=15,1,1,1
    4117   1017   1117    M=6      MS=1065,1165   G=9,1,1,1
    4127   1027   1127    M=4      MS=1065,1165   G=1,5,5,5
    4128   1028   1128    M=6      MS=1065,1165   G=3,1,1,1
    4133   1033   1133    M=4      MS=1065,1165   G=1,5,5,5
    4134   1034   1134    M=6      MS=1065,1165   G=3,1,1,1
    4139   1039   1139    M=6      MS=1065,1165   G=9,1,1,1
    4149   1049   1149    M=4      MS=1065,1165   G=15,1,1,1
C ================= KOLOM LANTAI 12 =============================
    4201   1101   1201    M=4      MS=1165,1265   G=15,1,1,1
    4217   1117   1217    M=6      MS=1165,1265   G=9,1,1,1
    4227   1127   1227    M=4      MS=1165,1265   G=1,5,5,5
    4228   1128   1228    M=6      MS=1165,1265   G=3,1,1,1
    4233   1133   1233    M=4      MS=1165,1265   G=1,5,5,5
    4234   1134   1234    M=6      MS=1165,1265   G=3,1,1,1
    4239   1139   1239    M=6      MS=1165,1265   G=9,1,1,1
    4249   1149   1249    M=4      MS=1165,1265   G=15,1,1,1
C ================= KOLOM LANTAI 13 =============================
    4301   1201   1301    M=4      MS=1265,1365   G=15,1,1,1
    4317   1217   1317    M=6      MS=1265,1365   G=9,1,1,1
    4327   1227   1327    M=4      MS=1265,1365   G=1,5,5,5
    4328   1228   1328    M=6      MS=1265,1365   G=3,1,1,1
    4333   1233   1333    M=4      MS=1265,1365   G=1,5,5,5
    4334   1234   1334    M=6      MS=1265,1365   G=3,1,1,1
    4339   1239   1339    M=6      MS=1265,1365   G=9,1,1,1
    4349   1249   1349    M=4      MS=1265,1365   G=15,1,1,1
C ================= KOLOM LANTAI 14 =============================
    4401   1301   1401    M=4      MS=1365,1465   G=15,1,1,1
    4417   1317   1417    M=6      MS=1365,1465   G=9,1,1,1
    4427   1327   1427    M=4      MS=1365,1465   G=1,5,5,5
    4428   1328   1428    M=6      MS=1365,1465   G=3,1,1,1
    4433   1333   1433    M=4      MS=1365,1465   G=1,5,5,5
    4434   1334   1434    M=6      MS=1365,1465   G=3,1,1,1
    4439   1339   1439    M=6      MS=1365,1465   G=9,1,1,1
    4449   1349   1449    M=4      MS=1365,1465   G=15,1,1,1
C ================= KOLOM LANTAI 15 =============================
    4501   1401   1501    M=4      MS=1465,1565   G=15,1,1,1
    4517   1417   1517    M=6      MS=1465,1565   G=9,1,1,1
    4527   1427   1527    M=4      MS=1465,1565   G=1,5,5,5
    4528   1428   1528    M=6      MS=1465,1565   G=3,1,1,1
    4533   1433   1533    M=4      MS=1465,1565   G=1,5,5,5
    4534   1434   1534    M=6      MS=1465,1565   G=3,1,1,1
    4539   1439   1539    M=6      MS=1465,1565   G=9,1,1,1
    4549   1449   1549    M=4      MS=1465,1565   G=15,1,1,1
C ================= KOLOM LANTAI 16 =============================
    4601   1501   1601    M=4      MS=1565,1665   G=15,1,1,1
    4617   1517   1617    M=6      MS=1565,1665   G=9,1,1,1
    4627   1527   1627    M=4      MS=1565,1665   G=1,5,5,5
    4628   1528   1628    M=6      MS=1565,1665   G=3,1,1,1
    4633   1533   1633    M=4      MS=1565,1665   G=1,5,5,5
    4634   1534   1634    M=6      MS=1565,1665   G=3,1,1,1
    4639   1539   1639    M=6      MS=1565,1665   G=9,1,1,1
    4649   1549   1649    M=4      MS=1565,1665   G=15,1,1,1
C ================= KOLOM LANTAI 17 =============================
    4701   1601   1701    M=4      MS=1665,1765   G=15,1,1,1
    4717   1617   1717    M=6      MS=1665,1765   G=9,1,1,1
    4727   1627   1727    M=4      MS=1665,1765   G=1,5,5,5
    4728   1628   1728    M=6      MS=1665,1765   G=3,1,1,1
    4733   1633   1733    M=4      MS=1665,1765   G=1,5,5,5
    4734   1634   1734    M=6      MS=1665,1765   G=3,1,1,1
    4739   1639   1739    M=6      MS=1665,1765   G=9,1,1,1
    4749   1649   1749    M=4      MS=1665,1765   G=15,1,1,1
C ================= KOLOM LANTAI 18 =============================
    4801   1701   1801    M=4      MS=1765,1865   G=15,1,1,1
    4817   1717   1817    M=6      MS=1765,1865   G=9,1,1,1
    4827   1727   1827    M=4      MS=1765,1865   G=1,5,5,5
    4828   1728   1828    M=6      MS=1765,1865   G=3,1,1,1
    4833   1733   1833    M=4      MS=1765,1865   G=1,5,5,5
    4834   1734   1834    M=6      MS=1765,1865   G=3,1,1,1
    4839   1739   1839    M=6      MS=1765,1865   G=9,1,1,1
    4849   1749   1849    M=4      MS=1765,1865   G=15,1,1,1
C ================= KOLOM LANTAI 19 =============================
    4901   1801   1901    M=4      MS=1865,1965   G=15,1,1,1
    4917   1817   1917    M=6      MS=1865,1965   G=9,1,1,1
    4927   1827   1927    M=4      MS=1865,1965   G=1,5,5,5
    4928   1828   1928    M=6      MS=1865,1965   G=3,1,1,1
    4933   1833   1933    M=4      MS=1865,1965   G=1,5,5,5
    4934   1834   1934    M=6      MS=1865,1965   G=3,1,1,1
    4939   1839   1939    M=6      MS=1865,1965   G=9,1,1,1
```

```
 4949  1849  1949   M=4    MS=1865,1965   G=15,1,1,1
C ================= KOLOM LANTAI 20 =============================
 5001  1901  2001   M=4    MS=1965,2065   G=15,1,1,1
 5017  1917  2017   M=6    MS=1965,2065   G=9,1,1,1
 5027  1927  2027   M=4    MS=1965,2065   G=1,5,5,5
 5028  1928  2028   M=6    MS=1965,2065   G=3,1,1,1
 5033  1933  2033   M=4    MS=1965,2065   G=1,5,5,5
 5034  1934  2034   M=6    MS=1965,2065   G=3,1,1,1
 5039  1939  2039   M=6    MS=1965,2065   G=9,1,1,1
 5049  1949  2049   M=4    MS=1965,2065   G=15,1,1,1
C ================= KOLOM LANTAI 21 =============================
 5101  2001  2101   M=5    MS=2065,2165   G=15,1,1,1
 5117  2017  2117   M=6    MS=2065,2165   G=9,1,1,1
 5127  2027  2127   M=5    MS=2065,2165   G=1,5,5,5
 5128  2028  2128   M=6    MS=2065,2165   G=3,1,1,1
 5133  2033  2133   M=5    MS=2065,2165   G=1,5,5,5
 5134  2034  2134   M=6    MS=2065,2165   G=3,1,1,1
 5139  2039  2139   M=6    MS=2065,2165   G=9,1,1,1
 5149  2049  2149   M=5    MS=2065,2165   G=15,1,1,1
C ================= KOLOM LANTAI 22 =============================
 5201  2101  2201   M=5    MS=2165,2265   G=15,1,1,1
 5217  2117  2217   M=6    MS=2165,2265   G=9,1,1,1
 5227  2127  2227   M=5    MS=2165,2265   G=1,5,5,5
 5228  2128  2228   M=6    MS=2165,2265   G=3,1,1,1
 5233  2133  2233   M=5    MS=2165,2265   G=1,5,5,5
 5234  2134  2234   M=6    MS=2165,2265   G=3,1,1,1
 5239  2139  2239   M=6    MS=2165,2265   G=9,1,1,1
 5249  2149  2249   M=5    MS=2165,2265   G=15,1,1,1
C ================= KOLOM LANTAI 23 =============================
 5301  2201  2301   M=5    MS=2265,2365   G=15,1,1,1
 5317  2217  2317   M=6    MS=2265,2365   G=9,1,1,1
 5327  2227  2327   M=5    MS=2265,2365   G=1,5,5,5
 5328  2228  2328   M=6    MS=2265,2365   G=3,1,1,1
 5333  2233  2333   M=5    MS=2265,2365   G=1,5,5,5
 5334  2234  2334   M=6    MS=2265,2365   G=3,1,1,1
 5339  2239  2339   M=6    MS=2265,2365   G=9,1,1,1
 5349  2249  2349   M=5    MS=2265,2365   G=15,1,1,1
C ================= KOLOM LANTAI 24 =============================
 5401  2301  2401   M=5    MS=2365,2465   G=15,1,1,1
 5417  2317  2417   M=6    MS=2365,2465   G=9,1,1,1
 5427  2327  2427   M=5    MS=2365,2465   G=1,5,5,5
 5428  2328  2428   M=6    MS=2365,2465   G=3,1,1,1
 5433  2333  2433   M=5    MS=2365,2465   G=1,5,5,5
 5434  2334  2434   M=6    MS=2365,2465   G=3,1,1,1
 5439  2339  2439   M=6    MS=2365,2465   G=9,1,1,1
 5449  2349  2449   M=5    MS=2365,2465   G=15,1,1,1
C ================= KOLOM LANTAI 25 =============================
 5501  2401  2501   M=5    MS=2465,2565   G=15,1,1,1
 5517  2417  2517   M=6    MS=2465,2565   G=9,1,1,1
 5527  2427  2527   M=5    MS=2465,2565   G=1,5,5,5
 5528  2428  2528   M=6    MS=2465,2565   G=3,1,1,1
 5533  2433  2533   M=5    MS=2465,2565   G=1,5,5,5
 5534  2434  2534   M=6    MS=2465,2565   G=3,1,1,1
 5539  2439  2539   M=6    MS=2465,2565   G=9,1,1,1
 5549  2449  2549   M=5    MS=2465,2565   G=15,1,1,1
C ================= KOLOM LANTAI 26 =============================
 5601  2501  2601   M=5    MS=2565,2665   G=15,1,1,1
 5617  2517  2617   M=6    MS=2565,2665   G=9,1,1,1
 5627  2527  2627   M=5    MS=2565,2665   G=1,5,5,5
 5628  2528  2628   M=6    MS=2565,2665   G=3,1,1,1
 5633  2533  2633   M=5    MS=2565,2665   G=1,5,5,5
 5634  2534  2634   M=6    MS=2565,2665   G=3,1,1,1
 5639  2539  2639   M=6    MS=2565,2665   G=9,1,1,1
 5649  2549  2649   M=5    MS=2565,2665   G=15,1,1,1
C ================= KOLOM LANTAI 27 =============================
 5701  2601  2701   M=5    MS=2665,2765   G=15,1,1,1
 5717  2617  2717   M=6    MS=2665,2765   G=9,1,1,1
 5727  2627  2727   M=5    MS=2665,2765   G=1,5,5,5
 5728  2628  2728   M=6    MS=2665,2765   G=3,1,1,1
 5733  2633  2733   M=5    MS=2665,2765   G=1,5,5,5
 5734  2634  2734   M=6    MS=2665,2765   G=3,1,1,1
 5739  2639  2739   M=6    MS=2665,2765   G=9,1,1,1
 5749  2649  2749   M=5    MS=2665,2765   G=15,1,1,1
C ================= KOLOM LANTAI 28 =============================
 5801  2701  2801   M=5    MS=2765,2865   G=15,1,1,1
 5817  2717  2817   M=6    MS=2765,2865   G=9,1,1,1
 5827  2727  2827   M=5    MS=2765,2865   G=1,5,5,5
 5828  2728  2828   M=6    MS=2765,2865   G=3,1,1,1
 5833  2733  2833   M=5    MS=2765,2865   G=1,5,5,5
 5834  2734  2834   M=6    MS=2765,2865   G=3,1,1,1
 5839  2739  2839   M=6    MS=2765,2865   G=9,1,1,1
```

```
 5849   2749   2849    M=5      MS=2765,2865    G=15,1,1,1
C ================= KOLOM LANTAI 29 ===========================
 5901   2801   2901    M=5      MS=2865,2965    G=15,1,1,1
 5917   2817   2917    M=6      MS=2865,2965    G=9,1,1,1
 5927   2827   2927    M=5      MS=2865,2965    G=1,5,5,5
 5928   2828   2928    M=6      MS=2865,2965    G=3,1,1,1
 5933   2833   2933    M=5      MS=2865,2965    G=1,5,5,5
 5934   2834   2934    M=6      MS=2865,2965    G=3,1,1,1
 5939   2839   2939    M=6      MS=2865,2965    G=9,1,1,1
 5949   2849   2949    M=5      MS=2865,2965    G=15,1,1,1
C ================= KOLOM LANTAI 30 ===========================
 6001   2901   3001    M=5      MS=2965,3065    G=15,1,1,1
 6017   2917   3017    M=6      MS=2965,3065    G=9,1,1,1
 6027   2927   3027    M=5      MS=2965,3065    G=1,5,5,5
 6028   2928   3028    M=6      MS=2965,3065    G=3,1,1,1
 6033   2933   3033    M=5      MS=2965,3065    G=1,5,5,5
 6034   2934   3034    M=6      MS=2965,3065    G=3,1,1,1
 6039   2939   3039    M=6      MS=2965,3065    G=9,1,1,1
 6049   2949   3049    M=5      MS=2965,3065    G=15,1,1,1

LOADS
C =============== MOMENT BEBAN MATI ===============
C =============== LANTAI 1 S/D 3 ===============
 102   302   100   L=3    F=0,0,0,29.448,0,0
 103   303   100   L=3    F=0,0,0,81.1,0,0
 104   304   100   L=3    F=0,0,0,103.392,0,0
 105   305   100   L=3    F=0,0,0,103.392,0,0
 106   306   100   L=3    F=0,0,0,81.1,0,0
 107   307   100   L=3    F=0,0,0,29.448,0,0
C =============== LANTAI 4 S/D 29 ===============
C =============== SEARAH SUMBU X ===============
 402   2902   100   L=3    F=0,0,0,29.448,0,0
 403   2903   100   L=3    F=0,0,0,81.1,0,0
 404   2904   100   L=3    F=0,0,0,103.392,0,0
 405   2905   100   L=3    F=0,0,0,103.392,0,0
 406   2906   100   L=3    F=0,0,0,81.1,0,0
 407   2907   100   L=3    F=0,0,0,29.448,0,0
C =============== SEARAH SUMBU -X ===============
 458   2958   100   L=3    F=0,0,0,-29.448,0,0
 459   2959   100   L=3    F=0,0,0,-81.1,0,0
 460   2960   100   L=3    F=0,0,0,-103.392,0,0
 461   2961   100   L=3    F=0,0,0,-103.392,0,0
 462   2962   100   L=3    F=0,0,0,-81.1,0,0
 463   2963   100   L=3    F=0,0,0,-29.448,0,0
C =============== SEARAH SUMBU Y ===============
 410   2910   100   L=3    F=0,0,0,0,29.448,0
 416   2916   100   L=3    F=0,0,0,0,81.1,0
 432   2932   100   L=3    F=0,0,0,0,103.392,0
 438   2938   100   L=3    F=0,0,0,0,103.392,0
 454   2954   100   L=3    F=0,0,0,0,81.1,0
 456   2956   100   L=3    F=0,0,0,0,29.448,0
C =============== SEARAH SUMBU -Y ===============
 409   2909   100   L=3    F=0,0,0,0,-29.448,0
 411   2911   100   L=3    F=0,0,0,0,-81.1,0
 427   2927   100   L=3    F=0,0,0,0,-103.392,0
 433   2933   100   L=3    F=0,0,0,0,-103.392,0
 449   2949   100   L=3    F=0,0,0,0,-81.1,0
 455   2955   100   L=3    F=0,0,0,0,-29.448,0
C =============== LANTAI ATAP ===============
C =============== SEARAH SUMBU X ===============
 3002   L=3    F=0,0,0,26.28,0,0
 3003   L=3    F=0,0,0,71.596,0,0
 3004   L=3    F=0,0,0,90.72,0,0
 3005   L=3    F=0,0,0,90.72,0,0
 3006   L=3    F=0,0,0,71.596,0,0
 3007   L=3    F=0,0,0,26.28,0,0
C =============== SEARAH SUMBU -X ===============
 3058   L=3    F=0,0,0,-26.28,0,0
 3059   L=3    F=0,0,0,-71.596,0,0
 3060   L=3    F=0,0,0,-90.72,0,0
 3061   L=3    F=0,0,0,-90.72,0,0
 3062   L=3    F=0,0,0,-71.596,0,0
 3063   L=3    F=0,0,0,-26.28,0,0
C =============== SEARAH SUMBU Y ===============
 3010   L=3    F=0,0,0,0,26.28,0
 3016   L=3    F=0,0,0,0,71.596,0
 3032   L=3    F=0,0,0,0,90.72,0
 3038   L=3    F=0,0,0,0,90.72,0
 3054   L=3    F=0,0,0,0,71.596,0
 3056   L=3    F=0,0,0,0,26.28,0
```

```
C =============== SEARAH SUMBU -Y ===============
  3009  L=3     F=0,0,0,0,-26.28,0
  3011  L=3     F=0,0,0,0,-71.596,0
  3027  L=3     F=0,0,0,0,-90.72,0
  3033  L=3     F=0,0,0,0,-90.72,0
  3049  L=3     F=0,0,0,0,-71.596,0
  3055  L=3     F=0,0,0,0,-26.28,0
C =============== MOMENT BEBAN HIDUP ===============
C =============== LANTAI 1 S/D 3 ===============
  102   302   100   L=4     F=0,0,0,9,0,0
  103   303   100   L=4     F=0,0,0,27,0,0
  104   304   100   L=4     F=0,0,0,36,0,0
  105   305   100   L=4     F=0,0,0,36,0,0
  106   306   100   L=4     F=0,0,0,27,0,0
  107   307   100   L=4     F=0,0,0,9,0,0
C =============== LANTAI 4 S/D 29 ===============
C =============== SEARAH SUMBU X ===============
  402   2902  100   L=4     F=0,0,0,9,0,0
  403   2903  100   L=4     F=0,0,0,27,0,0
  404   2904  100   L=4     F=0,0,0,36,0,0
  405   2905  100   L=4     F=0,0,0,36,0,0
  406   2906  100   L=4     F=0,0,0,27,0,0
  407   2907  100   L=4     F=0,0,0,9,0,0
C =============== SEARAH SUMBU -X ===============
  458   2958  100   L=4     F=0,0,0,-9,0,0
  459   2959  100   L=4     F=0,0,0,-27,0,0
  460   2960  100   L=4     F=0,0,0,-36,0,0
  461   2961  100   L=4     F=0,0,0,-36,0,0
  462   2962  100   L=4     F=0,0,0,-27,0,0
  463   2963  100   L=4     F=0,0,0,-9,0,0
C =============== SEARAH SUMBU Y ===============
  410   2910  100   L=4     F=0,0,0,0,9,0
  416   2916  100   L=4     F=0,0,0,0,27,0
  432   2932  100   L=4     F=0,0,0,0,36,0
  438   2938  100   L=4     F=0,0,0,0,36,0
  454   2954  100   L=4     F=0,0,0,0,27,0
  456   2956  100   L=4     F=0,0,0,0,9,0
C =============== SEARAH SUMBU -Y ===============
  409   2909  100   L=4     F=0,0,0,0,-9,0
  411   2911  100   L=4     F=0,0,0,0,-27,0
  427   2927  100   L=4     F=0,0,0,0,-36,0
  433   2933  100   L=4     F=0,0,0,0,-36,0
  449   2949  100   L=4     F=0,0,0,0,-27,0
  455   2955  100   L=4     F=0,0,0,0,-9,0
C =============== LANTAI ATAP ===============
C =============== SEARAH SUMBU X ===============
  3002  L=4     F=0,0,0,6.12,0,0
  3003  L=4     F=0,0,0,18.36,0,0
  3004  L=4     F=0,0,0,24.48,0,0
  3005  L=4     F=0,0,0,24.48,0,0
  3006  L=4     F=0,0,0,18.36,0,0
  3007  L=4     F=0,0,0,6.12,0,0
C =============== SEARAH SUMBU -X ===============
  3058  L=4     F=0,0,0,-6.12,0,0
  3059  L=4     F=0,0,0,-18.36,0,0
  3060  L=4     F=0,0,0,-24.48,0,0
  3061  L=4     F=0,0,0,-24.48,0,0
  3062  L=4     F=0,0,0,-18.36,0,0
  3063  L=4     F=0,0,0,-6.12,0,0
C =============== SEARAH SUMBU Y ===============
  3010  L=4     F=0,0,0,0,6.12,0
  3016  L=4     F=0,0,0,0,18.36,0
  3032  L=4     F=0,0,0,0,24.48,0
  3038  L=4     F=0,0,0,0,24.48,0
  3054  L=4     F=0,0,0,0,18.36,0
  3056  L=4     F=0,0,0,0,6.12,0
C =============== SEARAH SUMBU -Y ===============
  3009  L=4     F=0,0,0,0,-6.12,0
  3011  L=4     F=0,0,0,0,-18.36,0
  3027  L=4     F=0,0,0,0,-24.48,0
  3033  L=4     F=0,0,0,0,-24.48,0
  3049  L=4     F=0,0,0,0,-18.36,0
  3055  L=4     F=0,0,0,0,-6.12,0

MASSES
  189                       M=3445.8975,3445.8975,0,0,0,1552266.786
  289                       M=3157.7833,3157.7833,0,0,0,1422480.539
  389                       M=2870.4846,2870.4846,0,0,0,1293061.649
  465   2965  100           M=1627.5905,1627.5905,0,0,0,484306.2577
  3065                      M=1163.5728,1163.5728,0,0,0,346233.0418
```

```
SPEC
  S=14.715      A=0        D=0.05
C  PERIODE    ARAH-1     ARAH-2     ARAH-3
       0        0.05       0.05        0
       1        0.05       0.05        0
       2        0.025      0.025       0
       3        0.025      0.025       0

SELECT
C ======= JOINTS DISPLACEMENTS ========
  NT=1    ID=1,301,100        : LANTAI 1-3
          ID=3,303,100
          ID=15,315,100
          ID=21,321,100
          ID=33,333,100
          ID=34,334,100
          ID=401,3001,100     : LANTAI 4-30
          ID=403,3003,100
          ID=412,3012,100
          ID=417,3021,100
          ID=427,3027,100
          ID=428,3028,100
C ============ MODE SHAPES ===========
  NT=3
C =========== FRAME ELEMENTS ============
C =============== BALOK ================
  NT=5    ID=4,264,130        : LANTAI 1-3
          ID=13,273,130
          ID=28,288,130
          ID=70,330,130
          ID=81,341,130
          ID=93,353,130
          ID=404,3004,100     : LANTAI 4-30
          ID=410,3010,100
          ID=422,3022,100
          ID=448,3048,100
          ID=456,3056,100
          ID=465,3065,100
C =============== KOLOM ================
  NT=5    ID=3101,3301,100    : LANTAI 1-3
          ID=3103,3303,100
          ID=3115,3315,100
          ID=3121,3321,100
          ID=3133,3333,100
          ID=3134,3334,100
          ID=3401,6001,100    : LANTAI 4-30
          ID=3403,6003,100
          ID=3412,6012,100
          ID=3417,6021,100
          ID=3427,6027,100
          ID=3428,6028,100
```

SEPARATOR SHELL DAN MASSES UNTUK DINDING GESER

1. Tinggi dinding geser 10 % dari tinggi total struktur

```
SHELL
NM=1 O=0 Z=-1
 1    E=2E7 U=0.2 W=23.562 M=2.4007
C ===================== X-Z GRID 4 ============================
 1        JQ=21,22,121,122      ETYPE=0  M=1   TH=0.2,0   G=1,3
 31       JQ=23,24,123,124      ETYPE=0  M=1   TH=0.2,0   G=2,3
 91       JQ=26,27,126,127      ETYPE=0  M=1   TH=0.2,0   G=2,3
 151      JQ=29,30,129,130      ETYPE=0  M=1   TH=0.2,0   G=1,3
C ===================== Y-Z GRID 5 ============================
 181      JQ=21,34,121,134      ETYPE=0  M=1   TH=0.2,0   G=1,3
 211      JQ=34,44,134,144      ETYPE=0  M=1   TH=0.2,0   G=1,3
 241      JQ=44,51,144,151      ETYPE=0  M=1   TH=0.2,0   G=1,3
C ===================== Y-Z GRID 14 ===========================
 271      JQ=30,37,130,137      ETYPE=0  M=1   TH=0.2,0   G=1,3
 301      JQ=37,47,137,147      ETYPE=0  M=1   TH=0.2,0   G=1,3
 331      JQ=47,60,147,160      ETYPE=0  M=1   TH=0.2,0   G=1,3
C ===================== X-Z GRID 7 ============================
 361      JQ=51,52,151,152      ETYPE=0  M=1   TH=0.2,0   G=1,3
 391      JQ=53,54,153,154      ETYPE=0  M=1   TH=0.2,0   G=2,3
 451      JQ=56,57,156,157      ETYPE=0  M=1   TH=0.2,0   G=2,3
 511      JQ=59,60,159,160      ETYPE=0  M=1   TH=0.2,0   G=1,3

MASSES
 189                  M=3619.5978,3619.5978,0,0,0,1630513.225
 289                  M=3296.7436,3296.7436,0,0,0,1485077.717
 389                  M=2922.5947,2922.5947,0,0,0,1316535.582
 465     2965    100  M=1627.5905,1627.5905,0,0,0,484306.2577
 3065                 M=1163.5728,1163.5728,0,0,0,346233.0418
```

2. Tinggi dinding geser 20 % dari tinggi total struktur

```
SHELL
NM=1 O=0 Z=-1
 1    E=2E7 U=0.2 W=23.562 M=2.4007
C ===================== X-Z GRID 4 ============================
 1        JQ=21,22,121,122       ETYPE=0  M=1   TH=0.2,0   G=1,3
 4        JQ=321,322,417,418     ETYPE=0  M=1   TH=0.2,0   G=1,1
 5        JQ=417,418,517,518     ETYPE=0  M=1   TH=0.2,0   G=1,2
 31       JQ=23,24,123,124       ETYPE=0  M=1   TH=0.2,0   G=2,3
 37       JQ=323,324,419,420     ETYPE=0  M=1   TH=0.2,0   G=2,1
 39       JQ=419,420,519,520     ETYPE=0  M=1   TH=0.2,0   G=2,2
 91       JQ=26,27,126,127       ETYPE=0  M=1   TH=0.2,0   G=2,3
 97       JQ=326,327,422,423     ETYPE=0  M=1   TH=0.2,0   G=2,1
 99       JQ=422,423,522,523     ETYPE=0  M=1   TH=0.2,0   G=2,2
 151      JQ=29,30,129,130       ETYPE=0  M=1   TH=0.2,0   G=1,3
 154      JQ=329,330,425,426     ETYPE=0  M=1   TH=0.2,0   G=1,1
 155      JQ=425,426,525,526     ETYPE=0  M=1   TH=0.2,0   G=1,2
C ===================== Y-Z GRID 5 ============================
 181      JQ=21,34,121,134       ETYPE=0  M=1   TH=0.2,0   G=1,3
 184      JQ=321,334,417,428     ETYPE=0  M=1   TH=0.2,0   G=1,1
 185      JQ=417,428,517,528     ETYPE=0  M=1   TH=0.2,0   G=1,2
 211      JQ=34,44,134,144       ETYPE=0  M=1   TH=0.2,0   G=1,3
 214      JQ=334,344,428,434     ETYPE=0  M=1   TH=0.2,0   G=1,1
 215      JQ=428,434,528,534     ETYPE=0  M=1   TH=0.2,0   G=1,2
 241      JQ=44,51,144,151       ETYPE=0  M=1   TH=0.2,0   G=1,3
 244      JQ=344,351,434,439     ETYPE=0  M=1   TH=0.2,0   G=1,1
 245      JQ=434,439,534,539     ETYPE=0  M=1   TH=0.2,0   G=1,2
C ===================== Y-Z GRID 14 ===========================
 271      JQ=30,37,130,137       ETYPE=0  M=1   TH=0.2,0   G=1,3
 274      JQ=330,337,426,431     ETYPE=0  M=1   TH=0.2,0   G=1,1
 275      JQ=426,431,526,531     ETYPE=0  M=1   TH=0.2,0   G=1,2
 301      JQ=37,47,137,147       ETYPE=0  M=1   TH=0.2,0   G=1,3
 304      JQ=337,347,431,437     ETYPE=0  M=1   TH=0.2,0   G=1,1
 305      JQ=431,437,531,537     ETYPE=0  M=1   TH=0.2,0   G=1,2
 331      JQ=47,60,147,160       ETYPE=0  M=1   TH=0.2,0   G=1,3
 334      JQ=347,360,437,448     ETYPE=0  M=1   TH=0.2,0   G=1,1
 335      JQ=437,448,537,548     ETYPE=0  M=1   TH=0.2,0   G=1,2
```

```
C ======================= X-Z GRID 7 =============================
  361      JQ=51,52,151,152      ETYPE=0   M=1   TH=0.2,0   G=1,3
  364      JQ=351,352,439,440    ETYPE=0   M=1   TH=0.2,0   G=1,1
  365      JQ=439,440,539,540    ETYPE=0   M=1   TH=0.2,0   G=1,2
  391      JQ=53,54,153,154      ETYPE=0   M=1   TH=0.2,0   G=2,3
  397      JQ=353,354,441,442    ETYPE=0   M=1   TH=0.2,0   G=2,1
  399      JQ=441,442,541,542    ETYPE=0   M=1   TH=0.2,0   G=2,2
  451      JQ=56,57,156,157      ETYPE=0   M=1   TH=0.2,0   G=2,3
  457      JQ=356,357,444,445    ETYPE=0   M=1   TH=0.2,0   G=2,1
  459      JQ=444,445,544,545    ETYPE=0   M=1   TH=0.2,0   G=2,2
  511      JQ=59,60,159,160      ETYPE=0   M=1   TH=0.2,0   G=1,3
  514      JQ=359,360,447,448    ETYPE=0   M=1   TH=0.2,0   G=1,1
  515      JQ=447,448,547,548    ETYPE=0   M=1   TH=0.2,0   G=1,2

MASSES
  189                       M=3619.5978,3619.5978,0,0,0,1630513.225
  289                       M=3296.7436,3296.7436,0,0,0,1485077.717
  389                       M=2992.0749,2992.0749,0,0,0,1347834.197
  465      565      100     M=1731.8106,1731.8106,0,0,0,515318.0181
  665                       M=1679.7006,1679.7006,0,0,0,499812.1503
  765      2965     100     M=1627.5905,1627.5905,0,0,0,484306.2577
  3065                      M=1163.5728,1163.5728,0,0,0,346233.0418
```

3. Tinggi dinding geser 30 % dari tinggi total struktur

```
SHELL
  NM=1  O=0  Z=-1
  1      E=2E7 U=0.2 W=23.562 M=2.4007
C ======================= X-Z GRID 4 =============================
  1        JQ=21,22,121,122      ETYPE=0   M=1   TH=0.2,0   G=1,3
  4        JQ=321,322,417,418    ETYPE=0   M=1   TH=0.2,0   G=1,1
  5        JQ=417,418,517,518    ETYPE=0   M=1   TH=0.2,0   G=1,5
  31       JQ=23,24,123,124      ETYPE=0   M=1   TH=0.2,0   G=2,3
  37       JQ=323,324,419,420    ETYPE=0   M=1   TH=0.2,0   G=2,1
  39       JQ=419,420,519,520    ETYPE=0   M=1   TH=0.2,0   G=2,5
  91       JQ=26,27,126,127      ETYPE=0   M=1   TH=0.2,0   G=2,3
  97       JQ=326,327,422,423    ETYPE=0   M=1   TH=0.2,0   G=2,1
  99       JQ=422,423,522,523    ETYPE=0   M=1   TH=0.2,0   G=2,5
  151      JQ=29,30,129,130      ETYPE=0   M=1   TH=0.2,0   G=1,3
  154      JQ=329,330,425,426    ETYPE=0   M=1   TH=0.2,0   G=1,1
  155      JQ=425,426,525,526    ETYPE=0   M=1   TH=0.2,0   G=1,5
C ======================= Y-Z GRID 5 =============================
  181      JQ=21,34,121,134      ETYPE=0   M=1   TH=0.2,0   G=1,3
  184      JQ=321,334,417,428    ETYPE=0   M=1   TH=0.2,0   G=1,1
  185      JQ=417,428,517,528    ETYPE=0   M=1   TH=0.2,0   G=1,5
  211      JQ=34,44,134,144      ETYPE=0   M=1   TH=0.2,0   G=1,3
  214      JQ=334,344,428,434    ETYPE=0   M=1   TH=0.2,0   G=1,1
  215      JQ=428,434,528,534    ETYPE=0   M=1   TH=0.2,0   G=1,5
  241      JQ=44,51,144,151      ETYPE=0   M=1   TH=0.2,0   G=1,3
  244      JQ=344,351,434,439    ETYPE=0   M=1   TH=0.2,0   G=1,1
  245      JQ=434,439,534,539    ETYPE=0   M=1   TH=0.2,0   G=1,5
C ======================= Y-Z GRID 14 ============================
  271      JQ=30,37,130,137      ETYPE=0   M=1   TH=0.2,0   G=1,3
  274      JQ=330,337,426,431    ETYPE=0   M=1   TH=0.2,0   G=1,1
  275      JQ=426,431,526,531    ETYPE=0   M=1   TH=0.2,0   G=1,5
  301      JQ=37,47,137,147      ETYPE=0   M=1   TH=0.2,0   G=1,3
  304      JQ=337,347,431,437    ETYPE=0   M=1   TH=0.2,0   G=1,1
  305      JQ=431,437,531,537    ETYPE=0   M=1   TH=0.2,0   G=1,5
  331      JQ=47,60,147,160      ETYPE=0   M=1   TH=0.2,0   G=1,3
  334      JQ=347,360,437,448    ETYPE=0   M=1   TH=0.2,0   G=1,1
  335      JQ=437,448,537,548    ETYPE=0   M=1   TH=0.2,0   G=1,5
C ======================= X-Z GRID 7 =============================
  361      JQ=51,52,151,152      ETYPE=0   M=1   TH=0.2,0   G=1,3
  364      JQ=351,352,439,440    ETYPE=0   M=1   TH=0.2,0   G=1,1
  365      JQ=439,440,539,540    ETYPE=0   M=1   TH=0.2,0   G=1,5
  391      JQ=53,54,153,154      ETYPE=0   M=1   TH=0.2,0   G=2,3
  397      JQ=353,354,441,442    ETYPE=0   M=1   TH=0.2,0   G=2,1
  399      JQ=441,442,541,542    ETYPE=0   M=1   TH=0.2,0   G=2,5
  451      JQ=56,57,156,157      ETYPE=0   M=1   TH=0.2,0   G=2,3
  457      JQ=356,357,444,445    ETYPE=0   M=1   TH=0.2,0   G=2,1
  459      JQ=444,445,544,545    ETYPE=0   M=1   TH=0.2,0   G=2,5
  511      JQ=59,60,159,160      ETYPE=0   M=1   TH=0.2,0   G=1,3
  514      JQ=359,360,447,448    ETYPE=0   M=1   TH=0.2,0   G=1,1
  515      JQ=447,448,547,548    ETYPE=0   M=1   TH=0.2,0   G=1,5
```

```
MASSES
  189                      M=3619.5978,3619.5978,0,0,0,1630513.225
  289                      M=3296.7436,3296.7436,0,0,0,1485077.717
  389                      M=2992.0749,2992.0749,0,0,0,1347834.197
  465    865    100        M=1731.8106,1731.8106,0,0,0,515318.0181
  965                      M=1679.7006,1679.7006,0,0,0,499812.1503
 1065   2965    100        M=1627.5905,1627.5905,0,0,0,484306.2577
 3065                      M=1163.5728,1163.5728,0,0,0,346233.0418
```

4. Tinggi dinding geser 40 % dari tinggi total struktur

```
SHELL
NM=1  O=0  Z=-1
  1    E=2E7 U=0.2 W=23.562 M=2.4007
C =====================  X-Z GRID 4 ============================
  1       JQ=21,22,121,122      ETYPE=0  M=1  TH=0.2,0  G=1,3
  4       JQ=321,322,417,418    ETYPE=0  M=1  TH=0.2,0  G=1,1
  5       JQ=417,418,517,518    ETYPE=0  M=1  TH=0.2,0  G=1,8
 31       JQ=23,24,123,124      ETYPE=0  M=1  TH=0.2,0  G=2,3
 37       JQ=323,324,419,420    ETYPE=0  M=1  TH=0.2,0  G=2,1
 39       JQ=419,420,519,520    ETYPE=0  M=1  TH=0.2,0  G=2,8
 91       JQ=26,27,126,127      ETYPE=0  M=1  TH=0.2,0  G=2,3
 97       JQ=326,327,422,423    ETYPE=0  M=1  TH=0.2,0  G=2,1
 99       JQ=422,423,522,523    ETYPE=0  M=1  TH=0.2,0  G=2,8
151       JQ=29,30,129,130      ETYPE=0  M=1  TH=0.2,0  G=1,3
154       JQ=329,330,425,426    ETYPE=0  M=1  TH=0.2,0  G=1,1
155       JQ=425,426,525,526    ETYPE=0  M=1  TH=0.2,0  G=1,8
C ====================== Y-Z GRID 5 ==============================
181       JQ=21,34,121,134      ETYPE=0  M=1  TH=0.2,0  G=1,3
184       JQ=321,334,417,428    ETYPE=0  M=1  TH=0.2,0  G=1,1
185       JQ=417,428,517,528    ETYPE=0  M=1  TH=0.2,0  G=1,8
211       JQ=34,44,134,144      ETYPE=0  M=1  TH=0.2,0  G=1,3
214       JQ=334,344,428,434    ETYPE=0  M=1  TH=0.2,0  G=1,1
215       JQ=428,434,528,534    ETYPE=0  M=1  TH=0.2,0  G=1,8
241       JQ=44,51,144,151      ETYPE=0  M=1  TH=0.2,0  G=1,3
244       JQ=344,351,434,439    ETYPE=0  M=1  TH=0.2,0  G=1,1
245       JQ=434,439,534,539    ETYPE=0  M=1  TH=0.2,0  G=1,8
C ====================== Y-Z GRID 14 ==============================
271       JQ=30,37,130,137      ETYPE=0  M=1  TH=0.2,0  G=1,3
274       JQ=330,337,426,431    ETYPE=0  M=1  TH=0.2,0  G=1,1
275       JQ=426,431,526,531    ETYPE=0  M=1  TH=0.2,0  G=1,8
301       JQ=37,47,137,147      ETYPE=0  M=1  TH=0.2,0  G=1,3
304       JQ=337,347,431,437    ETYPE=0  M=1  TH=0.2,0  G=1,1
305       JQ=431,437,531,537    ETYPE=0  M=1  TH=0.2,0  G=1,8
331       JQ=47,60,147,160      ETYPE=0  M=1  TH=0.2,0  G=1,3
334       JQ=347,360,437,448    ETYPE=0  M=1  TH=0.2,0  G=1,1
335       JQ=437,448,537,548    ETYPE=0  M=1  TH=0.2,0  G=1,8
C ====================== X-Z GRID 7 ==============================
361       JQ=51,52,151,152      ETYPE=0  M=1  TH=0.2,0  G=1,3
364       JQ=351,352,439,440    ETYPE=0  M=1  TH=0.2,0  G=1,1
365       JQ=439,440,539,540    ETYPE=0  M=1  TH=0.2,0  G=1,8
391       JQ=53,54,153,154      ETYPE=0  M=1  TH=0.2,0  G=2,3
397       JQ=353,354,441,442    ETYPE=0  M=1  TH=0.2,0  G=2,1
399       JQ=441,442,541,542    ETYPE=0  M=1  TH=0.2,0  G=2,8
451       JQ=56,57,156,157      ETYPE=0  M=1  TH=0.2,0  G=2,3
457       JQ=356,357,444,445    ETYPE=0  M=1  TH=0.2,0  G=2,1
459       JQ=444,445,544,545    ETYPE=0  M=1  TH=0.2,0  G=2,8
511       JQ=59,60,159,160      ETYPE=0  M=1  TH=0.2,0  G=1,3
514       JQ=359,360,447,448    ETYPE=0  M=1  TH=0.2,0  G=1,1
515       JQ=447,448,547,548    ETYPE=0  M=1  TH=0.2,0  G=1,8

MASSES
  189                      M=3619.5978,3619.5978,0,0,0,1630513.225
  289                      M=3296.7436,3296.7436,0,0,0,1485077.717
  389                      M=2992.0749,2992.0749,0,0,0,1347834.197
  465   1165    100        M=1731.8106,1731.8106,0,0,0,515318.0181
 1265                      M=1679.7006,1679.7006,0,0,0,499812.1503
 1365   2965    100        M=1627.5905,1627.5905,0,0,0,484306.2577
 3065                      M=1163.5728,1163.5728,0,0,0,346233.0418
```

5. Tinggi dinding geser 50 % dari tinggi total struktur

```
SHELL
 NM=1 O=0 Z=-1
  1    E=2E7 U=0.2 W=23.562 M=2.4007
C ========================= X-Z GRID 4 ================================
  1        JQ=21,22,121,122      ETYPE=0  M=1   TH=0.2,0   G=1,3
  4        JQ=321,322,417,418    ETYPE=0  M=1   TH=0.2,0   G=1,1
  5        JQ=417,418,517,518    ETYPE=0  M=1   TH=0.2,0   G=1,11
  31       JQ=23,24,123,124      ETYPE=0  M=1   TH=0.2,0   G=2,3
  37       JQ=323,324,419,420    ETYPE=0  M=1   TH=0.2,0   G=2,1
  39       JQ=419,420,519,520    ETYPE=0  M=1   TH=0.2,0   G=2,11
  91       JQ=26,27,126,127      ETYPE=0  M=1   TH=0.2,0   G=2,3
  97       JQ=326,327,422,423    ETYPE=0  M=1   TH=0.2,0   G=2,1
  99       JQ=422,423,522,523    ETYPE=0  M=1   TH=0.2,0   G=2,11
  151      JQ=29,30,129,130      ETYPE=0  M=1   TH=0.2,0   G=1,3
  154      JQ=329,330,425,426    ETYPE=0  M=1   TH=0.2,0   G=1,1
  155      JQ=425,426,525,526    ETYPE=0  M=1   TH=0.2,0   G=1,26
C ========================= Y-Z GRID 5 ================================
  181      JQ=21,34,121,134      ETYPE=0  M=1   TH=0.2,0   G=1,3
  184      JQ=321,334,417,428    ETYPE=0  M=1   TH=0.2,0   G=1,1
  185      JQ=417,428,517,528    ETYPE=0  M=1   TH=0.2,0   G=1,11
  211      JQ=34,44,134,144      ETYPE=0  M=1   TH=0.2,0   G=1,3
  214      JQ=334,344,428,434    ETYPE=0  M=1   TH=0.2,0   G=1,1
  215      JQ=428,434,528,534    ETYPE=0  M=1   TH=0.2,0   G=1,11
  241      JQ=44,51,144,151      ETYPE=0  M=1   TH=0.2,0   G=1,3
  244      JQ=344,351,434,439    ETYPE=0  M=1   TH=0.2,0   G=1,1
  245      JQ=434,439,534,539    ETYPE=0  M=1   TH=0.2,0   G=1,11
C ========================= Y-Z GRID 14 ================================
  271      JQ=30,37,130,137      ETYPE=0  M=1   TH=0.2,0   G=1,3
  274      JQ=330,337,426,431    ETYPE=0  M=1   TH=0.2,0   G=1,1
  275      JQ=426,431,526,531    ETYPE=0  M=1   TH=0.2,0   G=1,11
  301      JQ=37,47,137,147      ETYPE=0  M=1   TH=0.2,0   G=1,3
  304      JQ=337,347,431,437    ETYPE=0  M=1   TH=0.2,0   G=1,1
  305      JQ=431,437,531,537    ETYPE=0  M=1   TH=0.2,0   G=1,11
  331      JQ=47,60,147,160      ETYPE=0  M=1   TH=0.2,0   G=1,3
  334      JQ=347,360,437,448    ETYPE=0  M=1   TH=0.2,0   G=1,1
  335      JQ=437,448,537,548    ETYPE=0  M=1   TH=0.2,0   G=1,11
C ========================= X-Z GRID 7 ================================
  361      JQ=51,52,151,152      ETYPE=0  M=1   TH=0.2,0   G=1,3
  364      JQ=351,352,439,440    ETYPE=0  M=1   TH=0.2,0   G=1,1
  365      JQ=439,440,539,540    ETYPE=0  M=1   TH=0.2,0   G=1,11
  391      JQ=53,54,153,154      ETYPE=0  M=1   TH=0.2,0   G=2,3
  397      JQ=353,354,441,442    ETYPE=0  M=1   TH=0.2,0   G=2,1
  399      JQ=441,442,541,542    ETYPE=0  M=1   TH=0.2,0   G=2,11
  451      JQ=56,57,156,157      ETYPE=0  M=1   TH=0.2,0   G=2,3
  457      JQ=356,357,444,445    ETYPE=0  M=1   TH=0.2,0   G=2,1
  459      JQ=444,445,544,545    ETYPE=0  M=1   TH=0.2,0   G=2,11
  511      JQ=59,60,159,160      ETYPE=0  M=1   TH=0.2,0   G=1,3
  514      JQ=359,360,447,448    ETYPE=0  M=1   TH=0.2,0   G=1,1
  515      JQ=447,448,547,548    ETYPE=0  M=1   TH=0.2,0   G=1,11

MASSES
  189                     M=3619.5978,3619.5978,0,0,0,1630513.225
  289                     M=3296.7436,3296.7436,0,0,0,1485077.717
  389                     M=2992.0749,2992.0749,0,0,0,1347834.197
  465    1465     100     M=1731.8106,1731.8106,0,0,0,515318.0181
  1565                    M=1679.7006,1679.7006,0,0,0,499812.1503
  1665   2965     100     M=1627.5905,1627.5905,0,0,0,484306.2577
  3065                    M=1163.5728,1163.5728,0,0,0,346233.0418
```

6. Tinggi dinding geser 60 % dari tinggi total struktur

```
SHELL
 NM=1 O=0 Z=-1
  1    E=2E7 U=0.2 W=23.562 M=2.4007
C ========================= X-Z GRID 4 ================================
  1        JQ=21,22,121,122      ETYPE=0  M=1   TH=0.2,0   G=1,3
  4        JQ=321,322,417,418    ETYPE=0  M=1   TH=0.2,0   G=1,1
  5        JQ=417,418,517,518    ETYPE=0  M=1   TH=0.2,0   G=1,14
  31       JQ=23,24,123,124      ETYPE=0  M=1   TH=0.2,0   G=2,3
  37       JQ=323,324,419,420    ETYPE=0  M=1   TH=0.2,0   G=2,1
  39       JQ=419,420,519,520    ETYPE=0  M=1   TH=0.2,0   G=2,14
  91       JQ=26,27,126,127      ETYPE=0  M=1   TH=0.2,0   G=2,3
  97       JQ=326,327,422,423    ETYPE=0  M=1   TH=0.2,0   G=2,1
```

```
99      JQ=422,423,522,523   ETYPE=0   M=1   TH=0.2,0   G=2,14
151     JQ=29,30,129,130     ETYPE=0   M=1   TH=0.2,0   G=1,3
154     JQ=329,330,425,426   ETYPE=0   M=1   TH=0.2,0   G=1,1
155     JQ=425,426,525,526   ETYPE=0   M=1   TH=0.2,0   G=1,14
C ===================== Y-Z GRID 5 =============================
181     JQ=21,34,121,134     ETYPE=0   M=1   TH=0.2,0   G=1,3
184     JQ=321,334,417,428   ETYPE=0   M=1   TH=0.2,0   G=1,1
185     JQ=417,428,517,528   ETYPE=0   M=1   TH=0.2,0   G=1,14
211     JQ=34,44,134,144     ETYPE=0   M=1   TH=0.2,0   G=1,3
214     JQ=334,344,428,434   ETYPE=0   M=1   TH=0.2,0   G=1,1
215     JQ=428,434,528,534   ETYPE=0   M=1   TH=0.2,0   G=1,14
241     JQ=44,51,144,151     ETYPE=0   M=1   TH=0.2,0   G=1,3
244     JQ=344,351,434,439   ETYPE=0   M=1   TH=0.2,0   G=1,1
245     JQ=434,439,534,539   ETYPE=0   M=1   TH=0.2,0   G=1,14
C ===================== Y-Z GRID 14 ============================
271     JQ=30,37,130,137     ETYPE=0   M=1   TH=0.2,0   G=1,3
274     JQ=330,337,426,431   ETYPE=0   M=1   TH=0.2,0   G=1,1
275     JQ=426,431,526,531   ETYPE=0   M=1   TH=0.2,0   G=1,14
301     JQ=37,47,137,147     ETYPE=0   M=1   TH=0.2,0   G=1,3
304     JQ=337,347,431,437   ETYPE=0   M=1   TH=0.2,0   G=1,1
305     JQ=431,437,531,537   ETYPE=0   M=1   TH=0.2,0   G=1,14
331     JQ=47,60,147,160     ETYPE=0   M=1   TH=0.2,0   G=1,3
334     JQ=347,360,437,448   ETYPE=0   M=1   TH=0.2,0   G=1,1
335     JQ=437,448,537,548   ETYPE=0   M=1   TH=0.2,0   G=1,14
C ===================== X-Z GRID 7 =============================
361     JQ=51,52,151,152     ETYPE=0   M=1   TH=0.2,0   G=1,3
364     JQ=351,352,439,440   ETYPE=0   M=1   TH=0.2,0   G=1,1
365     JQ=439,440,539,540   ETYPE=0   M=1   TH=0.2,0   G=1,14
391     JQ=53,54,153,154     ETYPE=0   M=1   TH=0.2,0   G=2,3
397     JQ=353,354,441,442   ETYPE=0   M=1   TH=0.2,0   G=2,1
399     JQ=441,442,541,542   ETYPE=0   M=1   TH=0.2,0   G=2,14
451     JQ=56,57,156,157     ETYPE=0   M=1   TH=0.2,0   G=2,3
457     JQ=356,357,444,445   ETYPE=0   M=1   TH=0.2,0   G=2,1
459     JQ=444,445,544,545   ETYPE=0   M=1   TH=0.2,0   G=2,14
511     JQ=59,60,159,160     ETYPE=0   M=1   TH=0.2,0   G=1,3
514     JQ=359,360,447,448   ETYPE=0   M=1   TH=0.2,0   G=1,1
515     JQ=447,448,547,548   ETYPE=0   M=1   TH=0.2,0   G=1,14

MASSES
189                         M=3619.5978,3619.5978,0,0,0,1630513.225
289                         M=3296.7436,3296.7436,0,0,0,1485077.717
389                         M=2992.0749,2992.0749,0,0,0,1347834.197
465     1765      100       M=1731.8106,1731.8106,0,0,0,515318.0181
1865                        M=1679.7006,1679.7006,0,0,0,499812.1503
1965    2965      100       M=1627.5905,1627.5905,0,0,0,484306.2577
3065                        M=1163.5728,1163.5728,0,0,0,346233.0418
```

7. Tinggi dinding geser 70 % dari tinggi total struktur

```
SHELL
NM=1  O=0  Z=-1
1   E=2E7  U=0.2  W=23.562  M=2.4007
C ===================== X-Z GRID 4 =============================
1       JQ=21,22,121,122     ETYPE=0   M=1   TH=0.2,0   G=1,3
4       JQ=321,322,417,418   ETYPE=0   M=1   TH=0.2,0   G=1,1
5       JQ=417,418,517,518   ETYPE=0   M=1   TH=0.2,0   G=1,17
31      JQ=23,24,123,124     ETYPE=0   M=1   TH=0.2,0   G=2,3
37      JQ=323,324,419,420   ETYPE=0   M=1   TH=0.2,0   G=2,1
39      JQ=419,420,519,520   ETYPE=0   M=1   TH=0.2,0   G=2,17
91      JQ=26,27,126,127     ETYPE=0   M=1   TH=0.2,0   G=2,3
97      JQ=326,327,422,423   ETYPE=0   M=1   TH=0.2,0   G=2,1
99      JQ=422,423,522,523   ETYPE=0   M=1   TH=0.2,0   G=2,17
151     JQ=29,30,129,130     ETYPE=0   M=1   TH=0.2,0   G=1,3
154     JQ=329,330,425,426   ETYPE=0   M=1   TH=0.2,0   G=1,1
155     JQ=425,426,525,526   ETYPE=0   M=1   TH=0.2,0   G=1,17
C ===================== Y-Z GRID 5 =============================
181     JQ=21,34,121,134     ETYPE=0   M=1   TH=0.2,0   G=1,3
184     JQ=321,334,417,428   ETYPE=0   M=1   TH=0.2,0   G=1,1
185     JQ=417,428,517,528   ETYPE=0   M=1   TH=0.2,0   G=1,17
211     JQ=34,44,134,144     ETYPE=0   M=1   TH=0.2,0   G=1,3
214     JQ=334,344,428,434   ETYPE=0   M=1   TH=0.2,0   G=1,1
215     JQ=428,434,528,534   ETYPE=0   M=1   TH=0.2,0   G=1,17
241     JQ=44,51,144,151     ETYPE=0   M=1   TH=0.2,0   G=1,3
244     JQ=344,351,434,439   ETYPE=0   M=1   TH=0.2,0   G=1,1
245     JQ=434,439,534,539   ETYPE=0   M=1   TH=0.2,0   G=1,17
C ===================== Y-Z GRID 14 ============================
271     JQ=30,37,130,137     ETYPE=0   M=1   TH=0.2,0   G=1,3
```

```
274      JQ=330,337,426,431   ETYPE=0  M=1   TH=0.2,0   G=1,1
275      JQ=426,431,526,531   ETYPE=0  M=1   TH=0.2,0   G=1,17
301      JQ=37,47,137,147     ETYPE=0  M=1   TH=0.2,0   G=1,3
304      JQ=337,347,431,437   ETYPE=0  M=1   TH=0.2,0   G=1,1
305      JQ=431,437,531,537   ETYPE=0  M=1   TH=0.2,0   G=1,17
331      JQ=47,60,147,160     ETYPE=0  M=1   TH=0.2,0   G=1,3
334      JQ=347,360,437,448   ETYPE=0  M=1   TH=0.2,0   G=1,1
335      JQ=437,448,537,548   ETYPE=0  M=1   TH=0.2,0   G=1,17
C ======================== X-Z GRID 7 ============================
361      JQ=51,52,151,152     ETYPE=0  M=1   TH=0.2,0   G=1,3
364      JQ=351,352,439,440   ETYPE=0  M=1   TH=0.2,0   G=1,1
365      JQ=439,440,539,540   ETYPE=0  M=1   TH=0.2,0   G=1,17
391      JQ=53,54,153,154     ETYPE=0  M=1   TH=0.2,0   G=2,3
397      JQ=353,354,441,442   ETYPE=0  M=1   TH=0.2,0   G=2,1
399      JQ=441,442,541,542   ETYPE=0  M=1   TH=0.2,0   G=2,17
451      JQ=56,57,156,157     ETYPE=0  M=1   TH=0.2,0   G=2,3
457      JQ=356,357,444,445   ETYPE=0  M=1   TH=0.2,0   G=2,1
459      JQ=444,445,544,545   ETYPE=0  M=1   TH=0.2,0   G=2,17
511      JQ=59,60,159,160     ETYPE=0  M=1   TH=0.2,0   G=1,3
514      JQ=359,360,447,448   ETYPE=0  M=1   TH=0.2,0   G=1,1
515      JQ=447,448,547,548   ETYPE=0  M=1   TH=0.2,0   G=1,17

MASSES
189                        M=3619.5978,3619.5978,0,0,0,1630513.225
289                        M=3296.7436,3296.7436,0,0,0,1485077.717
389                        M=2992.0749,2992.0749,0,0,0,1347834.197
465   2065    100          M=1731.8106,1731.8106,0,0,0,515318.0181
2165                       M=1679.7006,1679.7006,0,0,0,499812.1503
2265  2965    100          M=1627.5905,1627.5905,0,0,0,484306.2577
3065                       M=1163.5728,1163.5728,0,0,0,346233.0418
```

8. Tinggi dinding geser 80 % dari tinggi total struktur

```
SHELL
NM=1 O=0 Z=-1
1    E=2E7 U=0.2 W=23.562 M=2.4007
C ======================== X-Z GRID 4 ============================
1        JQ=21,22,121,122     ETYPE=0  M=1   TH=0.2,0   G=1,3
4        JQ=321,322,417,418   ETYPE=0  M=1   TH=0.2,0   G=1,1
5        JQ=417,418,517,518   ETYPE=0  M=1   TH=0.2,0   G=1,20
31       JQ=23,24,123,124     ETYPE=0  M=1   TH=0.2,0   G=2,3
37       JQ=323,324,419,420   ETYPE=0  M=1   TH=0.2,0   G=2,1
39       JQ=419,420,519,520   ETYPE=0  M=1   TH=0.2,0   G=2,20
91       JQ=26,27,126,127     ETYPE=0  M=1   TH=0.2,0   G=2,3
97       JQ=326,327,422,423   ETYPE=0  M=1   TH=0.2,0   G=2,1
99       JQ=422,423,522,523   ETYPE=0  M=1   TH=0.2,0   G=2,20
151      JQ=29,30,129,130     ETYPE=0  M=1   TH=0.2,0   G=1,3
154      JQ=329,330,425,426   ETYPE=0  M=1   TH=0.2,0   G=1,1
155      JQ=425,426,525,526   ETYPE=0  M=1   TH=0.2,0   G=1,20
C ======================== Y-Z GRID 5 ============================
181      JQ=21,34,121,134     ETYPE=0  M=1   TH=0.2,0   G=1,3
184      JQ=321,334,417,428   ETYPE=0  M=1   TH=0.2,0   G=1,1
185      JQ=417,428,517,528   ETYPE=0  M=1   TH=0.2,0   G=1,20
211      JQ=34,44,134,144     ETYPE=0  M=1   TH=0.2,0   G=1,3
214      JQ=334,344,428,434   ETYPE=0  M=1   TH=0.2,0   G=1,1
215      JQ=428,434,528,534   ETYPE=0  M=1   TH=0.2,0   G=1,20
241      JQ=44,51,144,151     ETYPE=0  M=1   TH=0.2,0   G=1,3
244      JQ=344,351,434,439   ETYPE=0  M=1   TH=0.2,0   G=1,1
245      JQ=434,439,534,539   ETYPE=0  M=1   TH=0.2,0   G=1,20
C ======================== Y-Z GRID 14 ============================
271      JQ=30,37,130,137     ETYPE=0  M=1   TH=0.2,0   G=1,3
274      JQ=330,337,426,431   ETYPE=0  M=1   TH=0.2,0   G=1,1
275      JQ=426,431,526,531   ETYPE=0  M=1   TH=0.2,0   G=1,20
301      JQ=37,47,137,147     ETYPE=0  M=1   TH=0.2,0   G=1,3
304      JQ=337,347,431,437   ETYPE=0  M=1   TH=0.2,0   G=1,1
305      JQ=431,437,531,537   ETYPE=0  M=1   TH=0.2,0   G=1,20
331      JQ=47,60,147,160     ETYPE=0  M=1   TH=0.2,0   G=1,3
334      JQ=347,360,437,448   ETYPE=0  M=1   TH=0.2,0   G=1,1
335      JQ=437,448,537,548   ETYPE=0  M=1   TH=0.2,0   G=1,20
C ======================== X-Z GRID 7 ============================
361      JQ=51,52,151,152     ETYPE=0  M=1   TH=0.2,0   G=1,3
364      JQ=351,352,439,440   ETYPE=0  M=1   TH=0.2,0   G=1,20
365      JQ=439,440,539,540   ETYPE=0  M=1   TH=0.2,0   G=1,20
391      JQ=53,54,153,154     ETYPE=0  M=1   TH=0.2,0   G=2,3
397      JQ=353,354,441,442   ETYPE=0  M=1   TH=0.2,0   G=2,1
399      JQ=441,442,541,542   ETYPE=0  M=1   TH=0.2,0   G=2,20
451      JQ=56,57,156,157     ETYPE=0  M=1   TH=0.2,0   G=2,3
```

```
457      JQ=356,357,444,445   ETYPE=0  M=1  TH=0.2,0  G=2,1
459      JQ=444,445,544,545   ETYPE=0  M=1  TH=0.2,0  G=2,20
511      JQ=59,60,159,160     ETYPE=0  M=1  TH=0.2,0  G=1,3
514      JQ=359,360,447,448   ETYPE=0  M=1  TH=0.2,0  G=1,1
515      JQ=447,448,547,548   ETYPE=0  M=1  TH=0.2,0  G=1,20

MASSES
189                           M=3619.5978,3619.5978,0,0,0,1630513.225
289                           M=3296.7436,3296.7436,0,0,0,1485077.717
389                           M=2992.0749,2992.0749,0,0,0,1347834.197
465      2365      100        M=1731.8106,1731.8106,0,0,0,515318.0181
2465                          M=1679.7006,1679.7006,0,0,0,499812.1503
2565     2965      100        M=1627.5905,1627.5905,0,0,0,484306.2577
3065                          M=1163.5728,1163.5728,0,0,0,346233.0418
```

9. Tinggi dinding geser 90 % dari tinggi total struktur

```
SHELL
NM=1 O=0 Z=-1
 1     E=2E7 U=0.2 W=23.562 M=2.4007
C ======================== X-Z GRID 4 ============================
 1       JQ=21,22,121,122     ETYPE=0  M=1  TH=0.2,0  G=1,3
 4       JQ=321,322,417,418   ETYPE=0  M=1  TH=0.2,0  G=1,1
 5       JQ=417,418,517,518   ETYPE=0  M=1  TH=0.2,0  G=1,23
 31      JQ=23,24,123,124     ETYPE=0  M=1  TH=0.2,0  G=2,3
 37      JQ=323,324,419,420   ETYPE=0  M=1  TH=0.2,0  G=2,1
 39      JQ=419,420,519,520   ETYPE=0  M=1  TH=0.2,0  G=2,23
 91      JQ=26,27,126,127     ETYPE=0  M=1  TH=0.2,0  G=2,3
 97      JQ=326,327,422,423   ETYPE=0  M=1  TH=0.2,0  G=2,1
 99      JQ=422,423,522,523   ETYPE=0  M=1  TH=0.2,0  G=2,23
 151     JQ=29,30,129,130     ETYPE=0  M=1  TH=0.2,0  G=1,3
 154     JQ=329,330,425,426   ETYPE=0  M=1  TH=0.2,0  G=1,1
 155     JQ=425,426,525,526   ETYPE=0  M=1  TH=0.2,0  G=1,23
C ======================== Y-Z GRID 5 ============================
 181     JQ=21,34,121,134     ETYPE=0  M=1  TH=0.2,0  G=1,3
 184     JQ=321,334,417,428   ETYPE=0  M=1  TH=0.2,0  G=1,1
 185     JQ=417,428,517,528   ETYPE=0  M=1  TH=0.2,0  G=1,23
 211     JQ=34,44,134,144     ETYPE=0  M=1  TH=0.2,0  G=1,3
 214     JQ=334,344,428,434   ETYPE=0  M=1  TH=0.2,0  G=1,1
 215     JQ=428,434,528,534   ETYPE=0  M=1  TH=0.2,0  G=1,23
 241     JQ=44,51,144,151     ETYPE=0  M=1  TH=0.2,0  G=1,3
 244     JQ=344,351,434,439   ETYPE=0  M=1  TH=0.2,0  G=1,1
 245     JQ=434,439,534,539   ETYPE=0  M=1  TH=0.2,0  G=1,23
C ======================== Y-Z GRID 14 ===========================
 271     JQ=30,37,130,137     ETYPE=0  M=1  TH=0.2,0  G=1,3
 274     JQ=330,337,426,431   ETYPE=0  M=1  TH=0.2,0  G=1,1
 275     JQ=426,431,526,531   ETYPE=0  M=1  TH=0.2,0  G=1,23
 301     JQ=37,47,137,147     ETYPE=0  M=1  TH=0.2,0  G=1,3
 304     JQ=337,347,431,437   ETYPE=0  M=1  TH=0.2,0  G=1,1
 305     JQ=431,437,531,537   ETYPE=0  M=1  TH=0.2,0  G=1,23
 331     JQ=47,60,147,160     ETYPE=0  M=1  TH=0.2,0  G=1,3
 334     JQ=347,360,437,448   ETYPE=0  M=1  TH=0.2,0  G=1,1
 335     JQ=437,448,537,548   ETYPE=0  M=1  TH=0.2,0  G=1,23
C ======================== X-Z GRID 7 ============================
 361     JQ=51,52,151,152     ETYPE=0  M=1  TH=0.2,0  G=1,3
 364     JQ=351,352,439,440   ETYPE=0  M=1  TH=0.2,0  G=1,1
 365     JQ=439,440,539,540   ETYPE=0  M=1  TH=0.2,0  G=1,23
 391     JQ=53,54,153,154     ETYPE=0  M=1  TH=0.2,0  G=2,3
 397     JQ=353,354,441,442   ETYPE=0  M=1  TH=0.2,0  G=2,1
 399     JQ=441,442,541,542   ETYPE=0  M=1  TH=0.2,0  G=2,23
 451     JQ=56,57,156,157     ETYPE=0  M=1  TH=0.2,0  G=2,3
 457     JQ=356,357,444,445   ETYPE=0  M=1  TH=0.2,0  G=2,1
 459     JQ=444,445,544,545   ETYPE=0  M=1  TH=0.2,0  G=2,23
 511     JQ=59,60,159,160     ETYPE=0  M=1  TH=0.2,0  G=1,3
 514     JQ=359,360,447,448   ETYPE=0  M=1  TH=0.2,0  G=1,1
 515     JQ=447,448,547,548   ETYPE=0  M=1  TH=0.2,0  G=1,23

MASSES
189                           M=3619.5978,3619.5978,0,0,0,1630513.225
289                           M=3296.7436,3296.7436,0,0,0,1485077.717
389                           M=2992.0749,2992.0749,0,0,0,1347834.197
465      2665      100        M=1731.8106,1731.8106,0,0,0,515318.0181
2765                          M=1679.7006,1679.7006,0,0,0,499812.1503
2865     2965      100        M=1627.5905,1627.5905,0,0,0,484306.2577
3065                          M=1163.5728,1163.5728,0,0,0,346233.0418
```

10. Tinggi dinding geser 100 % dari tinggi total struktur

```
SHELL
NM=1 O=0 Z=-1
 1    E=2E7 U=0.2 W=23.562 M=2.4007
C ====================== X-Z GRID 4 ==============================
 1       JQ=21,22,121,122     ETYPE=0  M=1   TH=0.2,0   G=1,3
 4       JQ=321,322,417,418   ETYPE=0  M=1   TH=0.2,0   G=1,1
 5       JQ=417,418,517,518   ETYPE=0  M=1   TH=0.2,0   G=1,26
 31      JQ=23,24,123,124     ETYPE=0  M=1   TH=0.2,0   G=2,3
 37      JQ=323,324,419,420   ETYPE=0  M=1   TH=0.2,0   G=2,1
 39      JQ=419,420,519,520   ETYPE=0  M=1   TH=0.2,0   G=2,26
 91      JQ=26,27,126,127     ETYPE=0  M=1   TH=0.2,0   G=2,3
 97      JQ=326,327,422,423   ETYPE=0  M=1   TH=0.2,0   G=2,1
 99      JQ=422,423,522,523   ETYPE=0  M=1   TH=0.2,0   G=2,26
 151     JQ=29,30,129,130     ETYPE=0  M=1   TH=0.2,0   G=1,3
 154     JQ=329,330,425,426   ETYPE=0  M=1   TH=0.2,0   G=1,1
 155     JQ=425,426,525,526   ETYPE=0  M=1   TH=0.2,0   G=1,26
C ====================== Y-Z GRID 5 ==============================
 181     JQ=21,34,121,134     ETYPE=0  M=1   TH=0.2,0   G=1,3
 184     JQ=321,334,417,428   ETYPE=0  M=1   TH=0.2,0   G=1,1
 185     JQ=417,428,517,528   ETYPE=0  M=1   TH=0.2,0   G=1,26
 211     JQ=34,44,134,144     ETYPE=0  M=1   TH=0.2,0   G=1,3
 214     JQ=334,344,428,434   ETYPE=0  M=1   TH=0.2,0   G=1,1
 215     JQ=428,434,528,534   ETYPE=0  M=1   TH=0.2,0   G=1,26
 241     JQ=44,51,144,151     ETYPE=0  M=1   TH=0.2,0   G=1,3
 244     JQ=344,351,434,439   ETYPE=0  M=1   TH=0.2,0   G=1,1
 245     JQ=434,439,534,539   ETYPE=0  M=1   TH=0.2,0   G=1,26
C ====================== Y-Z GRID 14 ==============================
 271     JQ=30,37,130,137     ETYPE=0  M=1   TH=0.2,0   G=1,3
 274     JQ=330,337,426,431   ETYPE=0  M=1   TH=0.2,0   G=1,1
 275     JQ=426,431,526,531   ETYPE=0  M=1   TH=0.2,0   G=1,26
 301     JQ=37,47,137,147     ETYPE=0  M=1   TH=0.2,0   G=1,3
 304     JQ=337,347,431,437   ETYPE=0  M=1   TH=0.2,0   G=1,1
 305     JQ=431,437,531,537   ETYPE=0  M=1   TH=0.2,0   G=1,26
 331     JQ=47,60,147,160     ETYPE=0  M=1   TH=0.2,0   G=1,3
 334     JQ=347,360,437,448   ETYPE=0  M=1   TH=0.2,0   G=1,1
 335     JQ=437,448,537,548   ETYPE=0  M=1   TH=0.2,0   G=1,26
C ====================== X-Z GRID 7 ==============================
 361     JQ=51,52,151,152     ETYPE=0  M=1   TH=0.2,0   G=1,3
 364     JQ=351,352,439,440   ETYPE=0  M=1   TH=0.2,0   G=1,1
 365     JQ=439,440,539,540   ETYPE=0  M=1   TH=0.2,0   G=1,26
 391     JQ=53,54,153,154     ETYPE=0  M=1   TH=0.2,0   G=2,3
 397     JQ=353,354,441,442   ETYPE=0  M=1   TH=0.2,0   G=2,1
 399     JQ=441,442,541,542   ETYPE=0  M=1   TH=0.2,0   G=2,26
 451     JQ=56,57,156,157     ETYPE=0  M=1   TH=0.2,0   G=2,3
 457     JQ=356,357,444,445   ETYPE=0  M=1   TH=0.2,0   G=2,1
 459     JQ=444,445,544,545   ETYPE=0  M=1   TH=0.2,0   G=2,26
 511     JQ=59,60,159,160     ETYPE=0  M=1   TH=0.2,0   G=1,3
 514     JQ=359,360,447,448   ETYPE=0  M=1   TH=0.2,0   G=1,1
 515     JQ=447,448,547,548   ETYPE=0  M=1   TH=0.2,0   G=1,26

MASSES
 189                    M=3619.5978,3619.5978,0,0,0,1630513.225
 289                    M=3296.7436,3296.7436,0,0,0,1485077.717
 389                    M=2992.0749,2992.0749,0,0,0,1347834.197
 465    2965    100     M=1731.8106,1731.8106,0,0,0,515318.0181
 3065                   M=1215.6829,1215.6829,0,0,0,361738.9345
```

CONTOH *OUTPUT JOINT DISPLACEMENTS*

1. Struktur tanpa dinding geser

DYNAMIC LOAD - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
101	0.025080	0.025276	0.003110	0.005899	0.005773	0.000082
103	0.025080	0.025248	0.001936	0.005936	0.005720	0.000082
115	0.024502	0.025248	0.000956	0.005869	0.005621	0.000082
121	0.024214	0.025248	0.003623	0.001878	0.003529	0.000082
133	0.023925	0.025276	0.000733	0.005863	0.005430	0.000082
134	0.023925	0.025248	0.003521	0.002522	0.003212	0.000082
201	0.059355	0.060580	0.005120	0.007854	0.007602	0.000181
203	0.059355	0.060524	0.003188	0.007884	0.007552	0.000181
215	0.058075	0.060524	0.001579	0.007822	0.007413	0.000181
221	0.057435	0.060524	0.005912	0.003184	0.004909	0.000181
233	0.056796	0.060580	0.001236	0.007833	0.007195	0.000181
234	0.056796	0.060524	0.005792	0.003687	0.004725	0.000181
301	0.101716	0.104415	0.007048	0.009663	0.009303	0.000297
303	0.101716	0.104328	0.004392	0.009698	0.009248	0.000297
315	0.099612	0.104328	0.002181	0.009630	0.009133	0.000297
321	0.098561	0.104328	0.008052	0.004348	0.006228	0.000297
333	0.097510	0.104415	0.001758	0.009608	0.008870	0.000297
334	0.097510	0.104328	0.007949	0.004805	0.006147	0.000297
1001	0.422111	0.436301	0.014724	0.013399	0.012944	0.000452
1003	0.422111	0.436252	0.009275	0.013437	0.012873	0.000452
1012	0.418913	0.436252	0.004659	0.013361	0.012884	0.000452
1017	0.417314	0.436252	0.015202	0.006949	0.009033	0.000452
1027	0.415716	0.436301	0.004225	0.013345	0.012961	0.000452
1028	0.415716	0.436252	0.015422	0.006984	0.009144	0.000452
1101	0.470480	0.486384	0.015447	0.013240	0.012779	0.000459
1103	0.470480	0.486339	0.009753	0.013276	0.012709	0.000459
1112	0.467235	0.486339	0.004907	0.013203	0.012719	0.000459
1117	0.465612	0.486339	0.015657	0.006949	0.008916	0.000459
1127	0.463990	0.486384	0.004498	0.013185	0.012796	0.000459
1128	0.463990	0.486339	0.015944	0.006891	0.009029	0.000459
1201	0.518041	0.535684	0.016083	0.013010	0.012541	0.000465
1203	0.518041	0.535642	0.010178	0.013044	0.012472	0.000465
1212	0.514752	0.535642	0.005128	0.012973	0.012481	0.000465
1217	0.513107	0.535642	0.015997	0.006908	0.008748	0.000465
1227	0.511463	0.535684	0.004751	0.012953	0.012557	0.000465
1228	0.511463	0.535642	0.016351	0.006760	0.008862	0.000465
2001	0.844722	0.877435	0.018600	0.009471	0.008937	0.000502
2003	0.844722	0.877405	0.012022	0.009484	0.008885	0.000502
2012	0.841153	0.877405	0.006138	0.009441	0.008886	0.000502
2017	0.839368	0.877405	0.015724	0.005562	0.006246	0.000502
2027	0.837584	0.877435	0.006103	0.009414	0.008938	0.000502
2028	0.837584	0.877405	0.016657	0.004830	0.006321	0.000502
2101	0.876625	0.911341	0.018673	0.008877	0.008341	0.000506
2103	0.876625	0.911311	0.012102	0.008888	0.008292	0.000506
2112	0.873029	0.911311	0.006190	0.008849	0.008291	0.000506
2117	0.871231	0.911311	0.015455	0.005306	0.005832	0.000506
2127	0.869433	0.911340	0.006198	0.008822	0.008340	0.000506
2128	0.869433	0.911311	0.016467	0.004511	0.005901	0.000506
2801	1.033854	1.082538	0.018577	0.004615	0.004114	0.000526
2803	1.033854	1.082511	0.012220	0.004605	0.004084	0.000526
2812	1.030137	1.082511	0.006313	0.004596	0.004073	0.000526
2817	1.028278	1.082511	0.013572	0.003468	0.002865	0.000526
2827	1.026420	1.082538	0.006535	0.004561	0.004098	0.000526
2828	1.026420	1.082511	0.015096	0.002237	0.002906	0.000526
2901	1.047804	1.098422	0.018550	0.004185	0.003687	0.000528
2903	1.047804	1.098395	0.012213	0.004179	0.003672	0.000528
2912	1.044078	1.098395	0.006314	0.004175	0.003668	0.000528
2917	1.042215	1.098395	0.013439	0.003297	0.002641	0.000528
2927	1.040353	1.098422	0.006547	0.004160	0.003674	0.000528
2928	1.040353	1.098395	0.014995	0.002080	0.002734	0.000528
3001	1.060578	1.113117	0.018536	0.003983	0.003491	0.000530
3003	1.060578	1.113091	0.012210	0.003953	0.003425	0.000530
3012	1.056844	1.113091	0.006314	0.003944	0.003394	0.000530
3017	1.054977	1.113091	0.013373	0.003079	0.001967	0.000530
3027	1.053111	1.113117	0.006553	0.003850	0.003458	0.000530
3028	1.053111	1.113091	0.014935	0.001394	0.001815	0.000530

2. Tinggi dinding geser 80 % dari tinggi total struktur

DYNAMIC LOAD - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
101	0.024033	0.024923	0.002544	0.005761	0.005438	0.000081
103	0.024033	0.024896	0.001559	0.005798	0.005388	0.000081
115	0.023460	0.024896	0.000554	0.005731	0.005257	0.000081
121	0.023174	0.024896	0.000063	0.000028	0.000118	0.000081
133	0.022888	0.024923	0.000359	0.005715	0.005113	0.000081
134	0.022888	0.024896	0.000040	0.000004	0.001074	0.000081
201	0.055775	0.059088	0.004177	0.007542	0.006936	0.000176
203	0.055775	0.059034	0.002561	0.007571	0.006891	0.000176
215	0.054536	0.059034	0.000912	0.007513	0.006731	0.000176
221	0.053917	0.059034	0.000096	0.000062	0.000124	0.000176
233	0.053299	0.059088	0.000614	0.007508	0.006571	0.000176
234	0.053299	0.059034	0.000067	0.000007	0.001612	0.000176
301	0.093585	0.100661	0.005731	0.009023	0.008083	0.000280
303	0.093585	0.100581	0.003517	0.009057	0.008035	0.000280
315	0.091610	0.100581	0.001254	0.008993	0.007898	0.000280
321	0.090623	0.100581	0.000124	0.000099	0.000192	0.000280
333	0.089637	0.100661	0.000890	0.008960	0.007709	0.000280
334	0.089637	0.100581	0.000094	0.000012	0.002025	0.000280
1001	0.346984	0.393558	0.011745	0.011456	0.009735	0.000433
1003	0.346984	0.393509	0.007322	0.011489	0.009682	0.000433
1012	0.343938	0.393509	0.002632	0.011422	0.009644	0.000433
1017	0.342415	0.393509	0.000202	0.000175	0.000267	0.000433
1027	0.340893	0.393558	0.002234	0.011393	0.009742	0.000433
1028	0.340893	0.393509	0.000157	0.000022	0.002643	0.000433
1101	0.383154	0.436216	0.012295	0.011249	0.009525	0.000442
1103	0.383154	0.436169	0.007689	0.011280	0.009473	0.000442
1112	0.380048	0.436169	0.002768	0.011215	0.009437	0.000442
1117	0.378496	0.436169	0.000205	0.000173	0.000261	0.000442
1127	0.376944	0.436216	0.002380	0.011185	0.009533	0.000442
1128	0.376944	0.436169	0.000159	0.000021	0.002589	0.000442
1201	0.418416	0.477947	0.012774	0.010988	0.009273	0.000450
1203	0.418416	0.477903	0.008017	0.011017	0.009222	0.000450
1212	0.415254	0.477903	0.002890	0.010953	0.009187	0.000450
1217	0.413674	0.477903	0.000208	0.000169	0.000255	0.000450
1227	0.412094	0.477947	0.002516	0.010924	0.009281	0.000450
1228	0.412094	0.477903	0.000161	0.000020	0.002524	0.000450
2001	0.653575	0.760291	0.014618	0.007666	0.006296	0.000501
2003	0.653575	0.760257	0.009460	0.007677	0.006259	0.000501
2012	0.650067	0.760257	0.003482	0.007637	0.006230	0.000501
2017	0.648314	0.760257	0.000266	0.000126	0.000192	0.000501
2027	0.646561	0.760291	0.003249	0.007609	0.006294	0.000501
2028	0.646561	0.760257	0.000211	0.000008	0.001740	0.000501
2101	0.675895	0.787586	0.014667	0.007159	0.005859	0.000506
2103	0.675895	0.787553	0.009528	0.007167	0.005825	0.000506
2112	0.672356	0.787553	0.003522	0.007131	0.005796	0.000506
2117	0.670588	0.787553	0.000293	0.000106	0.000121	0.000506
2127	0.668819	0.787586	0.003304	0.007104	0.005855	0.000506
2128	0.668819	0.787553	0.000229	0.000004	0.001603	0.000506
2801	0.789129	0.926562	0.014585	0.003826	0.003150	0.000531
2803	0.789129	0.926530	0.009672	0.003818	0.003127	0.000531
2812	0.785449	0.926530	0.003695	0.003797	0.003118	0.000531
2817	0.783610	0.926530	0.001373	0.001985	0.002237	0.000531
2827	0.781771	0.926562	0.003512	0.003783	0.003136	0.000531
2828	0.781771	0.926530	0.001548	0.002032	0.002300	0.000531
2901	0.799515	0.939487	0.014564	0.003432	0.002795	0.000534
2903	0.799515	0.939455	0.009670	0.003427	0.002784	0.000534
2912	0.795824	0.939455	0.003698	0.003416	0.002779	0.000534
2917	0.793980	0.939455	0.001440	0.001892	0.002031	0.000534
2927	0.792135	0.939487	0.003520	0.003412	0.002783	0.000534
2928	0.792135	0.939455	0.001645	0.001870	0.002138	0.000534
3001	0.808929	0.951323	0.014553	0.003246	0.002627	0.000536
3003	0.808929	0.951292	0.009668	0.003219	0.002579	0.000536
3012	0.805229	0.951292	0.003699	0.003183	0.002556	0.000536
3017	0.803380	0.951292	0.001464	0.001356	0.001555	0.000536
3027	0.801531	0.951323	0.003523	0.003142	0.002605	0.000536
3028	0.801531	0.951292	0.001679	0.001284	0.001483	0.000536

3. Tinggi dinding geser 100 % dari tinggi total struktur

DYNAMIC LOAD - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
101	0.024321	0.025207	0.002545	0.005826	0.005503	0.000082
103	0.024321	0.025179	0.001556	0.005864	0.005453	0.000082
115	0.023741	0.025179	0.000528	0.005796	0.005320	0.000082
121	0.023451	0.025179	0.000064	0.000029	0.000120	0.000082
133	0.023162	0.025207	0.000336	0.005780	0.005175	0.000082
134	0.023162	0.025179	0.000049	0.000005	0.001087	0.000082
201	0.056445	0.059762	0.004177	0.007628	0.007019	0.000178
203	0.056445	0.059707	0.002556	0.007658	0.006974	0.000178
215	0.055192	0.059707	0.000868	0.007599	0.006812	0.000178
221	0.054565	0.059707	0.000098	0.000062	0.000125	0.000178
233	0.053939	0.059762	0.000577	0.007594	0.006651	0.000178
234	0.053939	0.059707	0.000080	0.000008	0.001631	0.000178
301	0.094714	0.101811	0.005730	0.009126	0.008181	0.000283
303	0.094714	0.101730	0.003510	0.009161	0.008133	0.000283
315	0.092716	0.101730	0.001192	0.009096	0.007994	0.000283
321	0.091717	0.101730	0.000124	0.000100	0.000194	0.000283
333	0.090719	0.101811	0.000839	0.009063	0.007803	0.000283
334	0.090719	0.101730	0.000111	0.000012	0.002050	0.000283
1001	0.351304	0.398142	0.011703	0.011594	0.009861	0.000439
1003	0.351304	0.398092	0.007279	0.011627	0.009807	0.000439
1012	0.348215	0.398092	0.002460	0.011559	0.009770	0.000439
1017	0.346670	0.398092	0.000213	0.000177	0.000271	0.000439
1027	0.345127	0.398142	0.002106	0.011530	0.009869	0.000439
1028	0.345127	0.398092	0.000210	0.000023	0.002677	0.000439
1101	0.387952	0.441319	0.012241	0.011386	0.009651	0.000448
1103	0.387952	0.441272	0.007639	0.011417	0.009598	0.000448
1112	0.384801	0.441272	0.002577	0.011351	0.009561	0.000448
1117	0.383226	0.441272	0.000220	0.000174	0.000265	0.000448
1127	0.381651	0.441319	0.002241	0.011322	0.009659	0.000448
1128	0.381651	0.441272	0.000218	0.000022	0.002623	0.000448
1201	0.423687	0.483566	0.012708	0.011123	0.009398	0.000457
1203	0.423687	0.483521	0.007957	0.011153	0.009346	0.000457
1212	0.420478	0.483521	0.002680	0.011088	0.009310	0.000457
1217	0.418874	0.483521	0.000226	0.000171	0.000258	0.000457
1227	0.417271	0.483566	0.002364	0.011059	0.009406	0.000457
1228	0.417271	0.483521	0.000226	0.000021	0.002557	0.000457
2001	0.662005	0.769374	0.014393	0.007727	0.006348	0.000510
2003	0.662005	0.769339	0.009297	0.007738	0.006311	0.000510
2012	0.658441	0.769339	0.003079	0.007696	0.006281	0.000510
2017	0.656659	0.769339	0.000262	0.000124	0.000175	0.000510
2027	0.654877	0.769374	0.002997	0.007670	0.006345	0.000510
2028	0.654877	0.769339	0.000272	0.000013	0.001749	0.000510
2101	0.684460	0.796846	0.014417	0.007184	0.005873	0.000515
2103	0.684460	0.796812	0.009350	0.007193	0.005838	0.000515
2112	0.680864	0.796812	0.003089	0.007155	0.005810	0.000515
2117	0.679066	0.796812	0.000266	0.000117	0.000161	0.000515
2127	0.677269	0.796846	0.003038	0.007129	0.005868	0.000515
2128	0.677269	0.796812	0.000276	0.000012	0.001622	0.000515
2801	0.788611	0.928877	0.014173	0.003317	0.002478	0.000541
2803	0.788611	0.928845	0.009396	0.003307	0.002459	0.000541
2812	0.784868	0.928845	0.003065	0.003293	0.002437	0.000541
2817	0.782998	0.928845	0.000297	0.000062	0.000090	0.000541
2827	0.781127	0.928877	0.003172	0.003270	0.002461	0.000541
2828	0.781127	0.928845	0.000296	0.000003	0.000713	0.000541
2901	0.796599	0.939955	0.014143	0.002930	0.002130	0.000543
2903	0.796599	0.939922	0.009388	0.002925	0.002121	0.000543
2912	0.792846	0.939922	0.003060	0.002918	0.002107	0.000543
2917	0.790970	0.939922	0.000301	0.000049	0.000025	0.000543
2927	0.789094	0.939955	0.003176	0.002907	0.002117	0.000543
2928	0.789094	0.939922	0.000297	0.000001	0.000637	0.000543
3001	0.803674	0.949996	0.014127	0.002763	0.001986	0.000545
3003	0.803674	0.949963	0.009384	0.002734	0.001947	0.000545
3012	0.799912	0.949963	0.003057	0.002708	0.001907	0.000545
3015	0.799912	0.949963	0.003057	0.002709	0.001907	0.000545
3027	0.796151	0.949996	0.003178	0.002657	0.001959	0.000545
3028	0.796151	0.949963	0.000299	0.000005	0.000449	0.000545

CONTOH *OUTPUT FILE.F3F*

1. Struktur tanpa dinding geser

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F R A M E    E L E M E N T    F O R C E S
  ELT LOAD   DIST         1-2 PLANE      AXIAL       1-3 PLANE      AXIAL
  ID COND    ENDI      SHEAR    MOMENT   FORCE     SHEAR    MOMENT    TORQ
   4 -----------------------------------------------------------------------
      1    0.000                         0.000                       0.000
           0.000     65.248   -90.613            0.000    0.000
           3.600    -20.542    63.807            0.000    0.000
           7.200    -65.248   -90.613            0.000    0.000
           7.200                         0.000                       0.000
      2    0.000                         0.000                       0.000
           0.000     24.969   -34.819            0.000    0.000
           3.600     -8.100    24.704            0.000    0.000
           7.200    -24.969   -34.819            0.000    0.000
           7.200                         0.000                       0.000
      3    0.000                         0.000                       0.000
           0.000      0.000     0.000            0.000    0.000
           7.200      0.000     0.000            0.000    0.000
           7.200                         0.000                       0.000
      4    0.000                         0.000                       0.000
           0.000      0.000     0.000            0.000    0.000
           7.200      0.000     0.000            0.000    0.000
           7.200                         0.000                       0.000
    DYN    0.000                         0.000                       4.085
           0.000     83.600   300.961            0.000    0.000
           7.200     83.600   300.961            0.000    0.000
           7.200                         0.000                       4.085
  13 -----------------------------------------------------------------------
      1    0.000                         0.000                       0.000
           0.000     73.279  -105.843            0.000    0.000
           3.600    -29.841    79.772            0.000    0.000
           7.200    -73.279  -105.843            0.000    0.000
           7.200                         0.000                       0.000
      2    0.000                         0.000                       0.000
           0.000     28.350   -41.311            0.000    0.000
           3.600    -12.150    31.589            0.000    0.000
           7.200    -28.350   -41.311            0.000    0.000
           7.200                         0.000                       0.000
      3    0.000                         0.000                       0.000
           0.000      0.000     0.000            0.000    0.000
           7.200      0.000     0.000            0.000    0.000
           7.200                         0.000                       0.000
      4    0.000                         0.000                       0.000
           0.000      0.000     0.000            0.000    0.000
           7.200      0.000     0.000            0.000    0.000
           7.200                         0.000                       0.000
    DYN    0.000                         0.000                       3.841
           0.000     81.258   292.528            0.000    0.000
           7.200     81.258   292.528            0.000    0.000
           7.200                         0.000                       3.841
  28 -----------------------------------------------------------------------
      1    0.000                         0.000                      -6.298
           0.000     93.169  -150.787            0.000    0.000
           3.600    -32.436   106.432            0.000    0.000
           7.200    -75.874   -88.525            0.000    0.000
           7.200                         0.000                      -6.298
      2    0.000                         0.000                      -1.350
           0.000     35.393   -56.767            0.000    0.000
           3.600    -13.207    41.487            0.000    0.000
           7.200    -29.407   -35.218            0.000    0.000
           7.200                         0.000                      -1.350
      3    0.000                         0.000                      -0.296
           0.000     -0.009     0.036            0.000    0.000
           7.200     -0.009    -0.029            0.000    0.000
           7.200                         0.000                      -0.296
      4    0.000                         0.000                      -0.100
           0.000     -0.003     0.012            0.000    0.000
           7.200     -0.003    -0.010            0.000    0.000
           7.200                         0.000                      -0.100
    DYN    0.000                         0.000                     111.202
           0.000     61.228   239.660            0.000    0.000
           7.200     61.228   201.192            0.000    0.000
           7.200                         0.000                     111.202
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FRAME ELEMENT FORCES
  ELT LOAD   DIST        1-2 PLANE       AXIAL        1-3 PLANE      AXIAL
   ID COND   ENDI     SHEAR   MOMENT     FORCE     SHEAR   MOMENT    TORQ
3101 ------------------------------------------------
       1    0.000                      -5799.241                        0.000
            0.000    -0.716    1.782             -1.495   13.768
            7.500    -0.716   -3.585             -1.495    2.553
            7.500                      -5544.774                        0.000
       2    0.000                       -629.683                        0.000
            0.000    -0.259    0.645             -0.457    3.285
            7.500    -0.259   -1.297             -0.457   -0.140
            7.500                       -629.683                        0.000
       3    0.000                         -5.121                        0.000
            0.000     0.000   -0.001             -0.421    9.169
            7.500     0.000    0.002             -0.421    6.014
            7.500                         -5.121                        0.000
       4    0.000                         -1.721                        0.000
            0.000     0.000    0.000             -0.142    3.087
            7.500     0.000    0.001             -0.142    2.020
            7.500                         -1.721                        0.000
     DYN    0.000                      11943.325                      265.852
            0.000   335.841 3916.571            309.654 3874.029
            7.500   335.841 1409.748            309.654 1570.428
            7.500                      11943.325                      265.852
3103 ------------------------------------------------
       1    0.000                      -8372.254                        0.000
            0.000    -6.144   15.304             -9.315   33.246
            7.500    -6.144  -30.779             -9.315  -36.619
            7.500                      -8117.786                        0.000
       2    0.000                      -1638.599                        0.000
            0.000    -2.357    5.871             -3.514   10.901
            7.500    -2.357  -11.807             -3.514  -15.456
            7.500                      -1638.599                        0.000
       3    0.000                         -2.634                        0.000
            0.000    -0.001    0.002              5.065   -4.495
            7.500    -0.001   -0.004              5.065   33.493
            7.500                         -2.634                        0.000
       4    0.000                         -0.879                        0.000
            0.000     0.000    0.001              1.685   -1.464
            7.500     0.000   -0.001              1.685   11.173
            7.500                         -0.879                        0.000
     DYN    0.000                       7433.208                      265.852
            0.000   355.100 3964.707            293.142 3030.012
            7.500   355.100 1313.148            293.142 1646.481
            7.500                       7433.208                      265.852
5401 ------------------------------------------------
       1    0.000                      -1367.095                        0.000
            0.000   -10.561   19.763            -11.262   21.053
            3.750   -10.561  -19.841            -11.262  -21.178
            3.750                      -1239.861                        0.000
       2    0.000                       -171.094                        0.000
            0.000    -4.058    7.593             -4.268    7.981
            3.750    -4.058   -7.623             -4.268   -8.024
            3.750                       -171.094                        0.000
       3    0.000                          0.111                        0.000
            0.000     0.052   -0.097              0.053   -0.106
            3.750     0.052    0.097              0.053    0.091
            3.750                          0.111                        0.000
       4    0.000                          0.039                        0.000
            0.000     0.016   -0.030              0.016   -0.033
            3.750     0.016    0.030              0.016    0.028
            3.750                          0.039                        0.000
     DYN    0.000                        497.461                       95.035
            0.000   115.902  495.451            122.327  480.870
            3.750   115.902  805.285            122.327  822.709
            3.750                        497.461                       95.035
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F R A M E   E L E M E N T   F O R C E S
   ELT LOAD    DIST        1-2 PLANE       AXIAL       1-3 PLANE      AXIAL
    ID COND    ENDI    SHEAR    MOMENT     FORCE    SHEAR    MOMENT    TORQ
  5403 ----------------------------------------------
         1    0.000                      -1824.280                     0.000
              0.000   -57.482   107.623           -47.855    89.629
              3.750   -57.482  -107.936           -47.855   -89.825
              3.750                      -1697.047                     0.000
         2    0.000                       -341.377                     0.000
              0.000   -22.066    41.373           -17.816    33.374
              3.750   -22.066   -41.374           -17.816   -33.435
              3.750                       -341.377                     0.000
         3    0.000                         -0.237                     0.000
              0.000    -0.012     0.023            21.508   -40.332
              3.750    -0.012    -0.023            21.508    40.323
              3.750                         -0.237                     0.000
         4    0.000                         -0.072                     0.000
              0.000    -0.004     0.008             7.160   -13.427
              3.750    -0.004    -0.008             7.160    13.423
              3.750                         -0.072                     0.000
       DYN    0.000                        549.366                    95.035
              0.000   220.074   325.524           103.151   486.914
              3.750   220.074  1012.989           103.151   804.861
              3.750                        549.366                    95.035
  6001 ----------------------------------------------
         1    0.000                       -191.148                     0.000
              0.000   -17.041    25.407           -18.146    27.014
              3.750   -17.041   -38.498           -18.146   -41.035
              3.750                        -63.914                     0.000
         2    0.000                        -21.144                     0.000
              0.000    -6.351     9.607            -6.685    10.092
              3.750    -6.351   -14.209            -6.685   -14.975
              3.750                        -21.144                     0.000
         3    0.000                          0.010                     0.000
              0.000     0.152    -0.150             0.154    -0.154
              3.750     0.152     0.420             0.154     0.424
              3.750                          0.010                     0.000
         4    0.000                          0.004                     0.000
              0.000     0.035    -0.041             0.036    -0.042
              3.750     0.035     0.091             0.036     0.092
              3.750                          0.004                     0.000
       DYN    0.000                        122.731                    54.441
              0.000   111.921   348.287           101.275   333.136
              3.750   111.921   189.096           101.275   184.938
              3.750                        122.731                    54.441
  6003 ----------------------------------------------
         1    0.000                       -241.064                     0.000
              0.000   -91.248   136.142           -72.671   109.979
              3.750   -91.248  -206.038           -72.671  -162.539
              3.750                       -113.830                     0.000
         2    0.000                        -30.698                     0.000
              0.000   -33.112    50.642           -23.996    38.507
              3.750   -33.112   -73.527           -23.996   -51.477
              3.750                        -30.698                     0.000
         3    0.000                         -0.094                     0.000
              0.000    -0.021     0.030            31.681   -48.290
              3.750    -0.021    -0.049            31.681    70.515
              3.750                         -0.094                     0.000
         4    0.000                         -0.020                     0.000
              0.000    -0.007     0.010             8.739   -14.661
              3.750    -0.007    -0.016             8.739    18.112
              3.750                         -0.020                     0.000
       DYN    0.000                         91.002                    54.441
              0.000    42.092   160.743            49.562   254.271
              3.750    42.092   302.379            49.562   203.167
              3.750                         91.002                    54.441
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2. Tinggi dinding geser 80 % dari tinggi total struktur

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F R A M E    E L E M E N T    F O R C E S
   ELT LOAD    DIST        1-2 PLANE      AXIAL      1-3 PLANE      AXIAL
   ID COND     ENDI    SHEAR    MOMENT    FORCE   SHEAR   MOMENT     TORQ
    4  ------------------------------------------------------------------
        1    0.000                        0.000                      0.000
             0.000    65.248   -90.613            0.000    0.000
             3.600   -20.542    63.807            0.000    0.000
             7.200   -65.248   -90.613            0.000    0.000
             7.200                        0.000                      0.000
        2    0.000                        0.000                      0.000
             0.000    24.969   -34.819            0.000    0.000
             3.600    -8.100    24.704            0.000    0.000
             7.200   -24.969   -34.819            0.000    0.000
             7.200                        0.000                      0.000
        3    0.000                        0.000                      0.000
             0.000     0.000     0.000            0.000    0.000
             7.200     0.000     0.000            0.000    0.000
             7.200                        0.000                      0.000
        4    0.000                        0.000                      0.000
             0.000     0.000     0.000            0.000    0.000
             7.200     0.000     0.000            0.000    0.000
             7.200                        0.000                      0.000
      DYN    0.000                        0.000                      3.999
             0.000    78.716   283.378            0.000    0.000
             7.200    78.716   283.378            0.000    0.000
             7.200                        0.000                      3.999
   13  ------------------------------------------------------------------
        1    0.000                        0.000                      0.000
             0.000    73.279  -105.839            0.000    0.000
             3.600   -29.841    79.775            0.000    0.000
             7.200   -73.279  -105.839            0.000    0.000
             7.200                        0.000                      0.000
        2    0.000                        0.000                      0.000
             0.000    28.350   -41.310            0.000    0.000
             3.600   -12.150    31.590            0.000    0.000
             7.200   -28.350   -41.310            0.000    0.000
             7.200                        0.000                      0.000
        3    0.000                        0.000                      0.000
             0.000     0.000     0.000            0.000    0.000
             7.200     0.000     0.000            0.000    0.000
             7.200                        0.000                      0.000
        4    0.000                        0.000                      0.000
             0.000     0.000     0.000            0.000    0.000
             7.200     0.000     0.000            0.000    0.000
             7.200                        0.000                      0.000
      DYN    0.000                        0.000                      3.919
             0.000    76.075   273.869            0.000    0.000
             7.200    76.075   273.869            0.000    0.000
             7.200                        0.000                      3.919
   28  ------------------------------------------------------------------
        1    0.000                        0.000                     -0.746
             0.000    86.212  -128.305            0.000    0.000
             3.600   -39.393   103.870            0.000    0.000
             7.200   -82.831  -116.133            0.000    0.000
             7.200                        0.000                     -0.746
        2    0.000                        0.000                     -0.167
             0.000    33.033   -49.372            0.000    0.000
             3.600   -15.567    40.387            0.000    0.000
             7.200   -31.767   -44.814            0.000    0.000
             7.200                        0.000                     -0.167
        3    0.000                        0.000                     -0.513
             0.000    -0.003     0.014            0.000    0.000
             7.200    -0.003    -0.008            0.000    0.000
             7.200                        0.000                     -0.513
        4    0.000                        0.000                     -0.173
             0.000    -0.001     0.005            0.000    0.000
             7.200    -0.001    -0.003            0.000    0.000
             7.200                        0.000                     -0.173
      DYN    0.000                        0.000                    186.207
             0.000    44.017   193.527            0.000    0.000
             7.200    44.017   123.397            0.000    0.000
             7.200                        0.000                    186.207
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F R A M E   E L E M E N T   F O R C E S

| ELT LOAD | DIST | 1-2 PLANE | | AXIAL | 1-3 PLANE | | AXIAL |
ID COND	ENDI	SHEAR	MOMENT	FORCE	SHEAR	MOMENT	TORQ
3101 ----							
1	0.000			-5766.887			0.000
	0.000	-0.710	1.768		-1.476	13.320	
	7.500	-0.710	-3.555		-1.476	2.248	
	7.500			-5512.419			0.000
2	0.000			-618.863			0.000
	0.000	-0.257	0.640		-0.451	3.182	
	7.500	-0.257	-1.287		-0.451	-0.199	
	7.500			-618.863			0.000
3	0.000			-4.655			0.000
	0.000	0.000	0.000		-0.417	8.901	
	7.500	0.000	0.001		-0.417	5.771	
	7.500			-4.655			0.000
4	0.000			-1.564			0.000
	0.000	0.000	0.000		-0.141	2.997	
	7.500	0.000	0.000		-0.141	1.938	
	7.500			-1.564			0.000
DYN	0.000			9773.183			267.095
	0.000	360.257	3884.604		329.254	3914.848	
	7.500	360.257	1192.281		329.254	1462.481	
	7.500			9773.183			267.095
3103 ----							
1	0.000			-8257.912			0.000
	0.000	-6.123	15.250		-9.134	32.392	
	7.500	-6.123	-30.669		-9.134	-36.109	
	7.500			-8003.444			0.000
2	0.000			-1600.055			0.000
	0.000	-2.351	5.856		-3.453	10.659	
	7.500	-2.351	-11.777		-3.453	-15.236	
	7.500			-1600.055			0.000
3	0.000			-2.490			0.000
	0.000	-0.001	0.002		5.067	-4.759	
	7.500	-0.001	-0.004		5.067	33.242	
	7.500			-2.490			0.000
4	0.000			-0.831			0.000
	0.000	0.000	0.001		1.685	-1.553	
	7.500	0.000	-0.001		1.685	11.088	
	7.500			-0.831			0.000
DYN	0.000			5975.942			267.095
	0.000	378.665	3930.562		312.445	3869.993	
	7.500	378.665	1100.111		312.445	1540.118	
	7.500			5975.942			267.095
5401 ----							
1	0.000			-1356.371			0.000
	0.000	-10.293	19.262		-10.820	20.235	
	3.750	-10.293	-19.337		-10.820	-20.340	
	3.750			-1229.138			0.000
2	0.000			-167.478			0.000
	0.000	-3.967	7.423		-4.120	7.706	
	3.750	-3.967	-7.452		-4.120	-7.743	
	3.750			-167.478			0.000
3	0.000			0.096			0.000
	0.000	0.050	-0.094		0.053	-0.103	
	3.750	0.050	0.094		0.053	0.096	
	3.750			0.096			0.000
4	0.000			0.034			0.000
	0.000	0.015	-0.029		0.016	-0.032	
	3.750	0.015	0.029		0.016	0.030	
	3.750			0.034			0.000
DYN	0.000			500.866			88.396
	0.000	83.393	424.526		94.951	460.571	
	3.750	83.393	622.840		94.951	718.955	
	3.750			500.866			88.396

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F R A M E   E L E M E N T   F O R C E S
 ELT LOAD  DIST       1-2 PLANE     AXIAL     1-3 PLANE     AXIAL
  ID COND  ENDI    SHEAR   MOMENT   FORCE   SHEAR   MOMENT    TORQ
5403 ---------------------------------------
      1   0.000                  -1786.469                        0.000
          0.000   -56.232  105.285           -40.219   75.360
          3.750   -56.232 -105.584           -40.219  -75.460
          3.750                  -1659.235                        0.000
      2   0.000                   -328.620                        0.000
          0.000   -21.671   40.635           -15.216   28.515
          3.750   -21.671  -40.631           -15.216  -28.545
          3.750                   -328.620                        0.000
      3   0.000                     -0.239                        0.000
          0.000    -0.013    0.023            21.507  -40.325
          3.750    -0.013   -0.024            21.507   40.326
          3.750                     -0.239                        0.000
      4   0.000                     -0.072                        0.000
          0.000    -0.004    0.008             7.160  -13.425
          3.750    -0.004   -0.008             7.160   13.423
          3.750                     -0.072                        0.000
    DYN   0.000                    442.877                       88.396
          0.000   150.631  302.733            80.516  461.442
          3.750   150.631  762.856            80.516  710.072
          3.750                    442.877                       88.396
6001 ---------------------------------------
      1   0.000                   -189.649                        0.000
          0.000   -16.591   24.741           -17.388   25.872
          3.750   -16.591  -37.475           -17.388  -39.335
          3.750                    -62.415                        0.000
      2   0.000                    -20.638                        0.000
          0.000    -6.198    9.382            -6.430    9.708
          3.750    -6.198  -13.862            -6.430  -14.404
          3.750                    -20.638                        0.000
      3   0.000                      0.007                        0.000
          0.000     0.150   -0.147             0.154   -0.152
          3.750     0.150    0.414             0.154    0.425
          3.750                      0.007                        0.000
      4   0.000                      0.003                        0.000
          0.000     0.034   -0.040             0.036   -0.042
          3.750     0.034    0.089             0.036    0.092
          3.750                      0.003                        0.000
    DYN   0.000                    129.895                       47.887
          0.000   105.368  303.126            98.242  316.065
          3.750   105.368  154.536            98.242  133.014
          3.750                    129.895                       47.887
6003 ---------------------------------------
      1   0.000                   -235.752                        0.000
          0.000   -89.141  133.036           -59.829   91.036
          3.750   -89.141 -201.243           -59.829 -133.323
          3.750                   -108.518                        0.000
      2   0.000                    -28.907                        0.000
          0.000   -32.453   49.664           -19.624   32.057
          3.750   -32.453  -72.034           -19.624  -41.533
          3.750                    -28.907                        0.000
      3   0.000                     -0.095                        0.000
          0.000    -0.022    0.031            31.679  -48.285
          3.750    -0.022   -0.050            31.679   70.511
          3.750                     -0.095                        0.000
      4   0.000                     -0.020                        0.000
          0.000    -0.007    0.010             8.739  -14.659
          3.750    -0.007   -0.016             8.739   18.110
          3.750                     -0.020                        0.000
    DYN   0.000                     78.628                       47.887
          0.000    24.334  187.660            37.881  237.289
          3.750    24.334  146.776            37.881  127.661
          3.750                     78.628                       47.887
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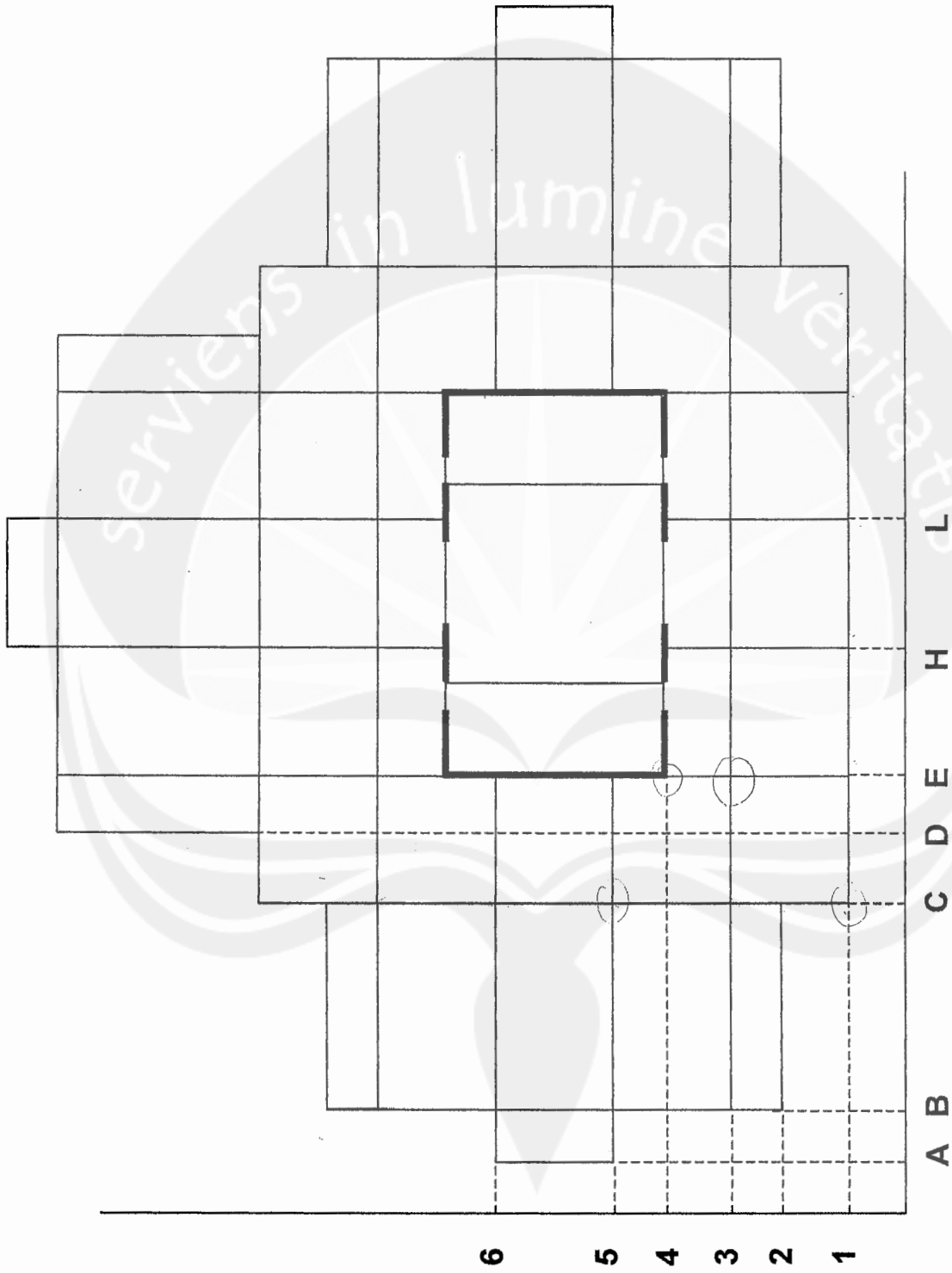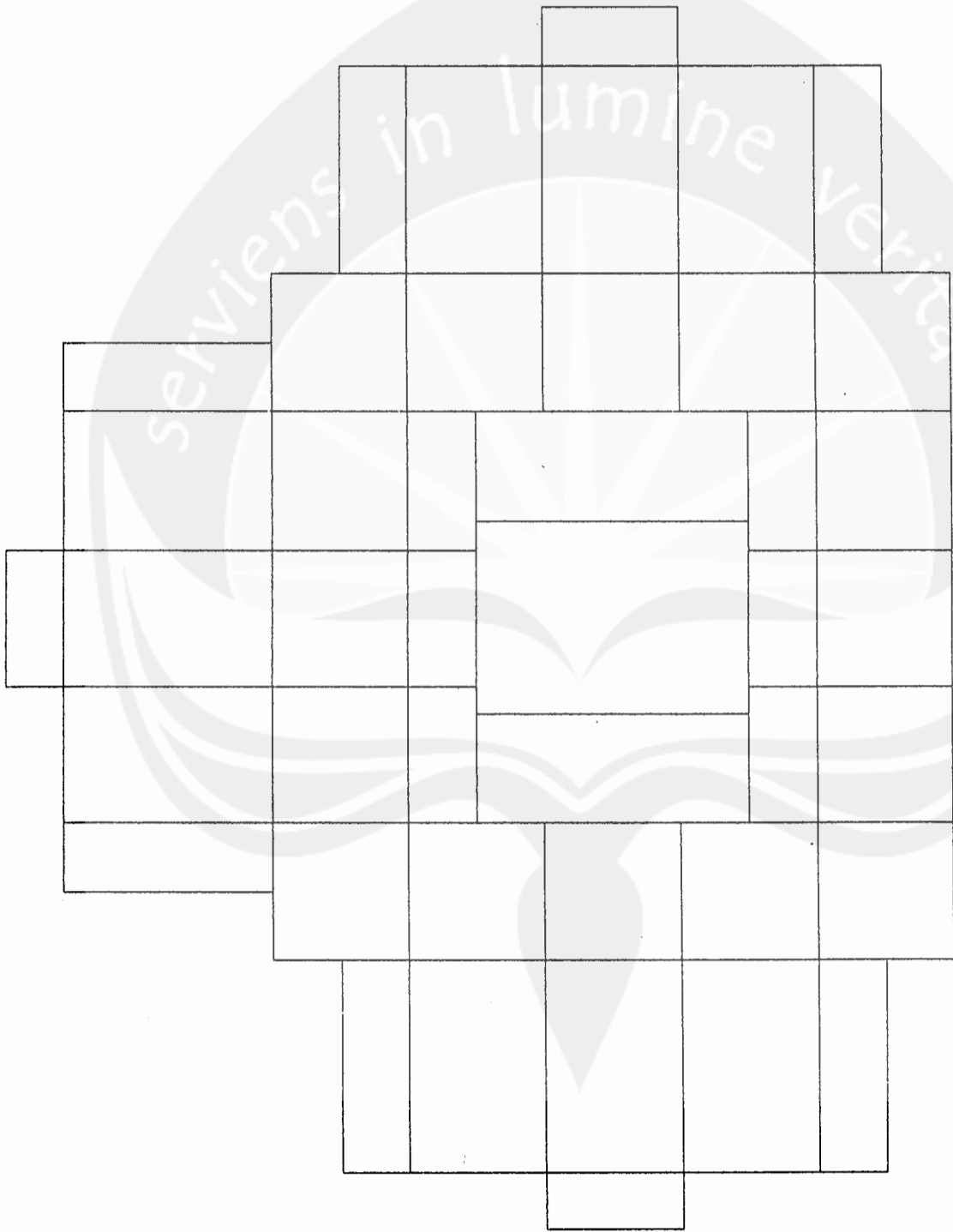
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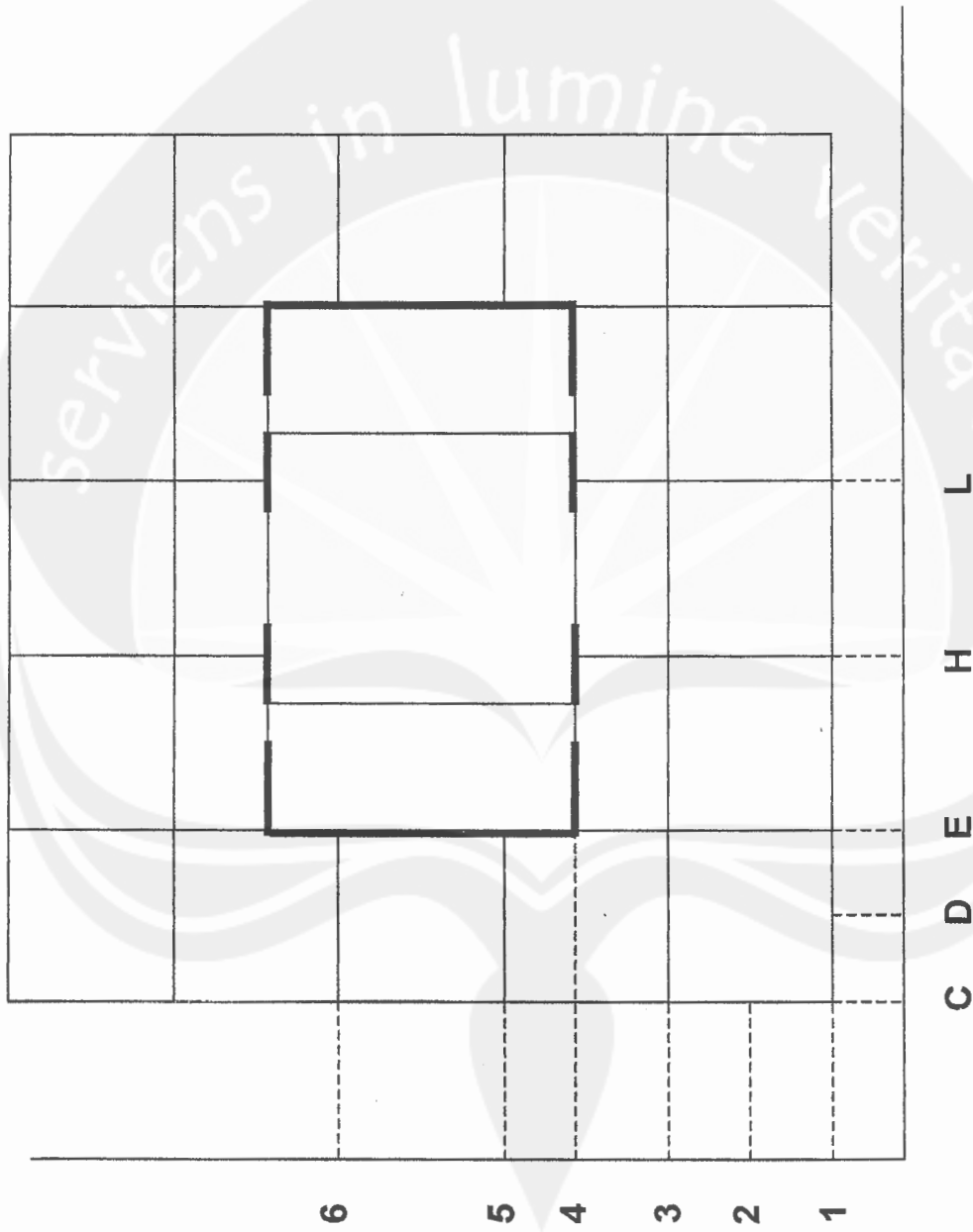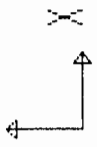
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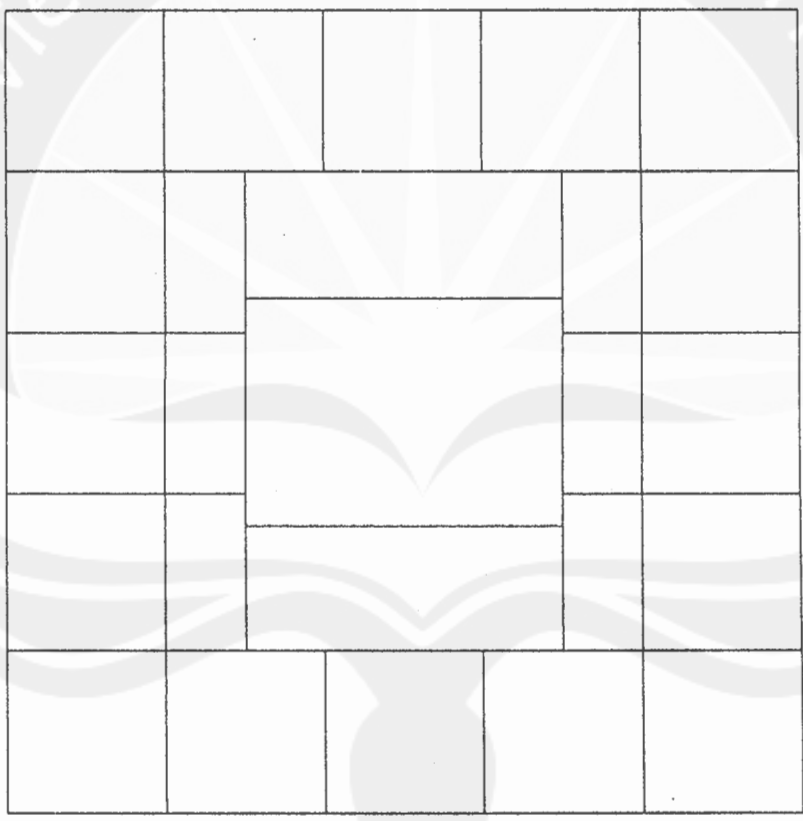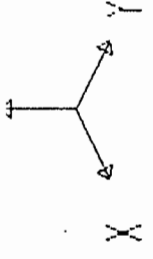SHAPE

OPTIONS
WIRE FRAME

SAP90

BATAVIA.
UNDEFORMED
SHAPE

OPTIONS
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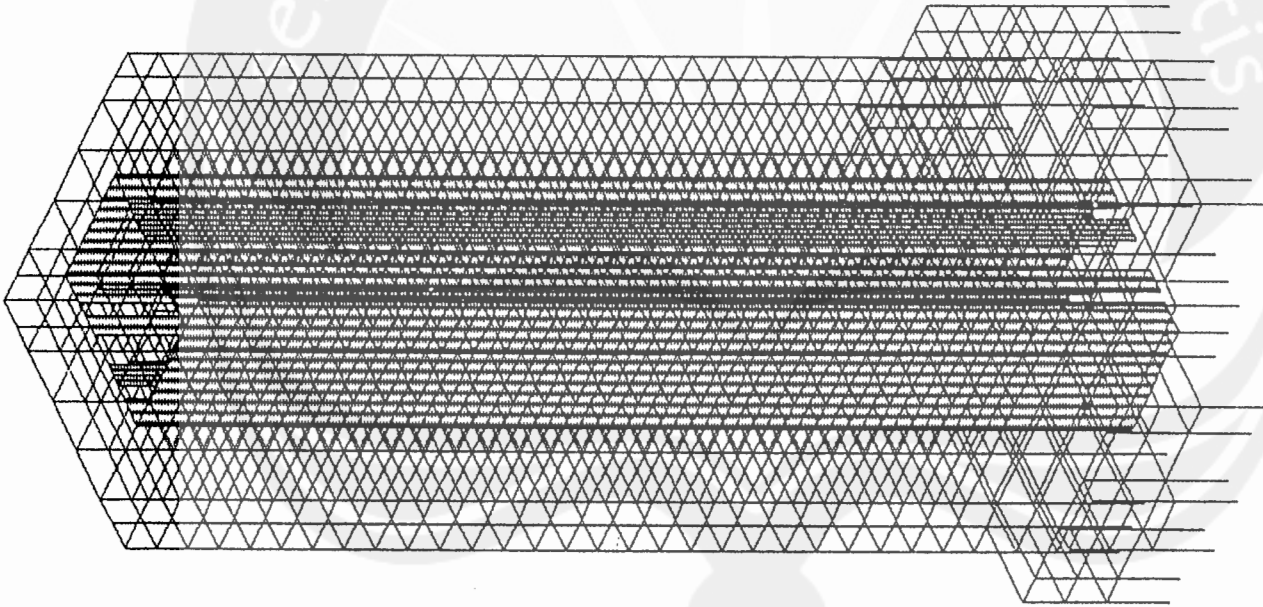
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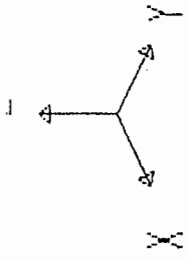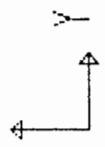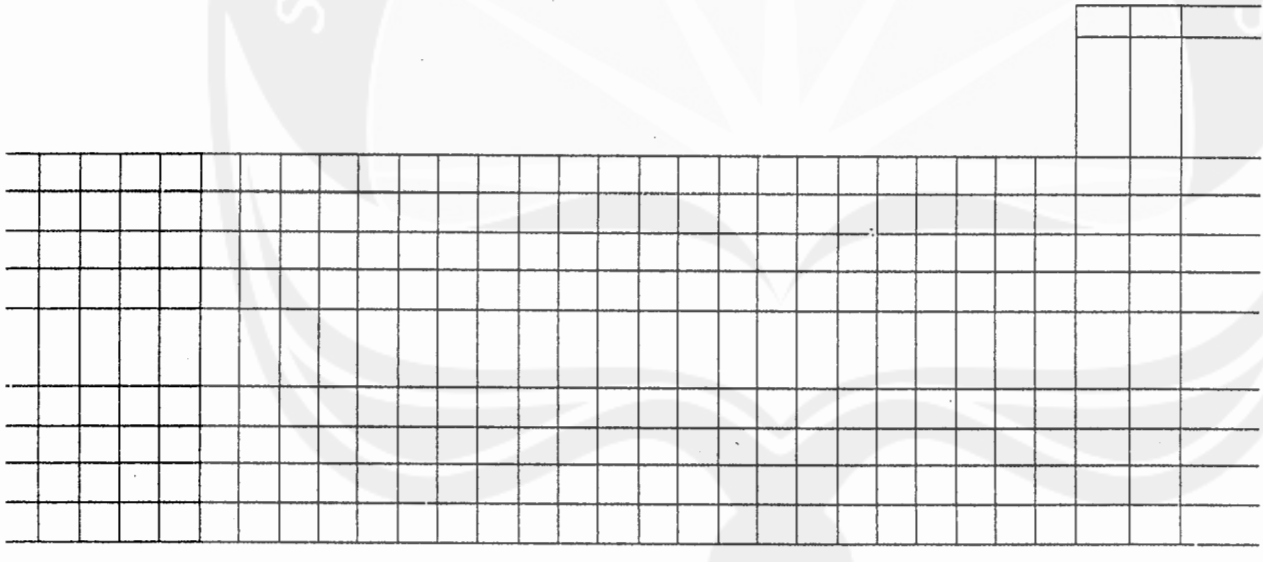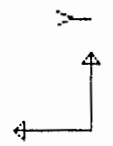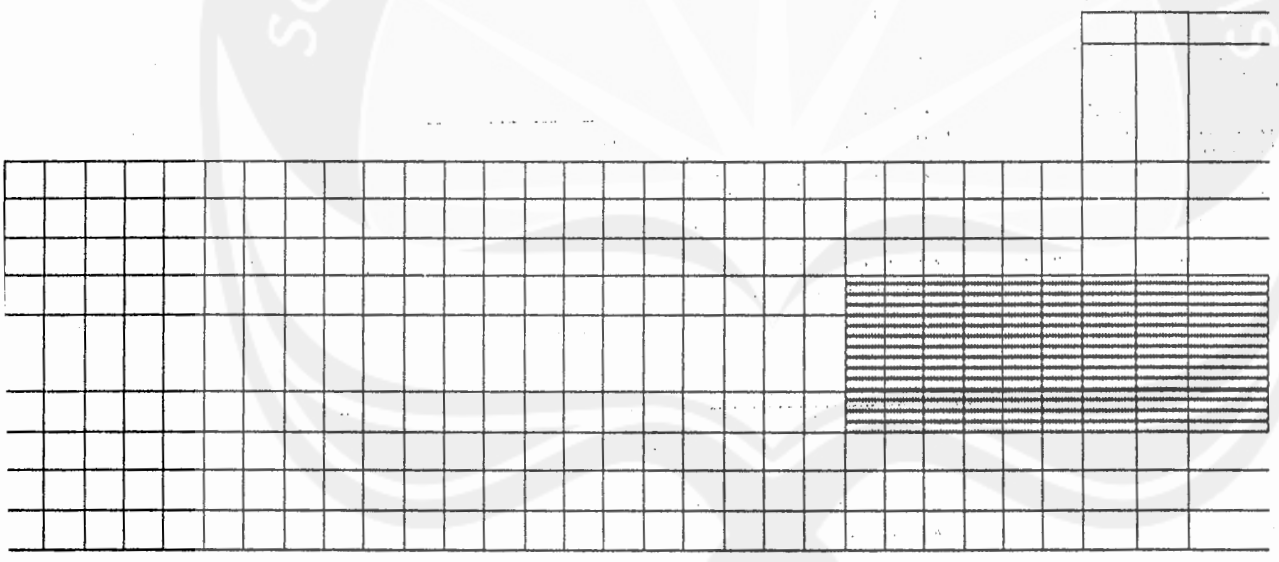WIRE FRAME

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BATAVIA
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OPTIONS
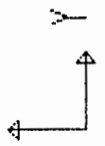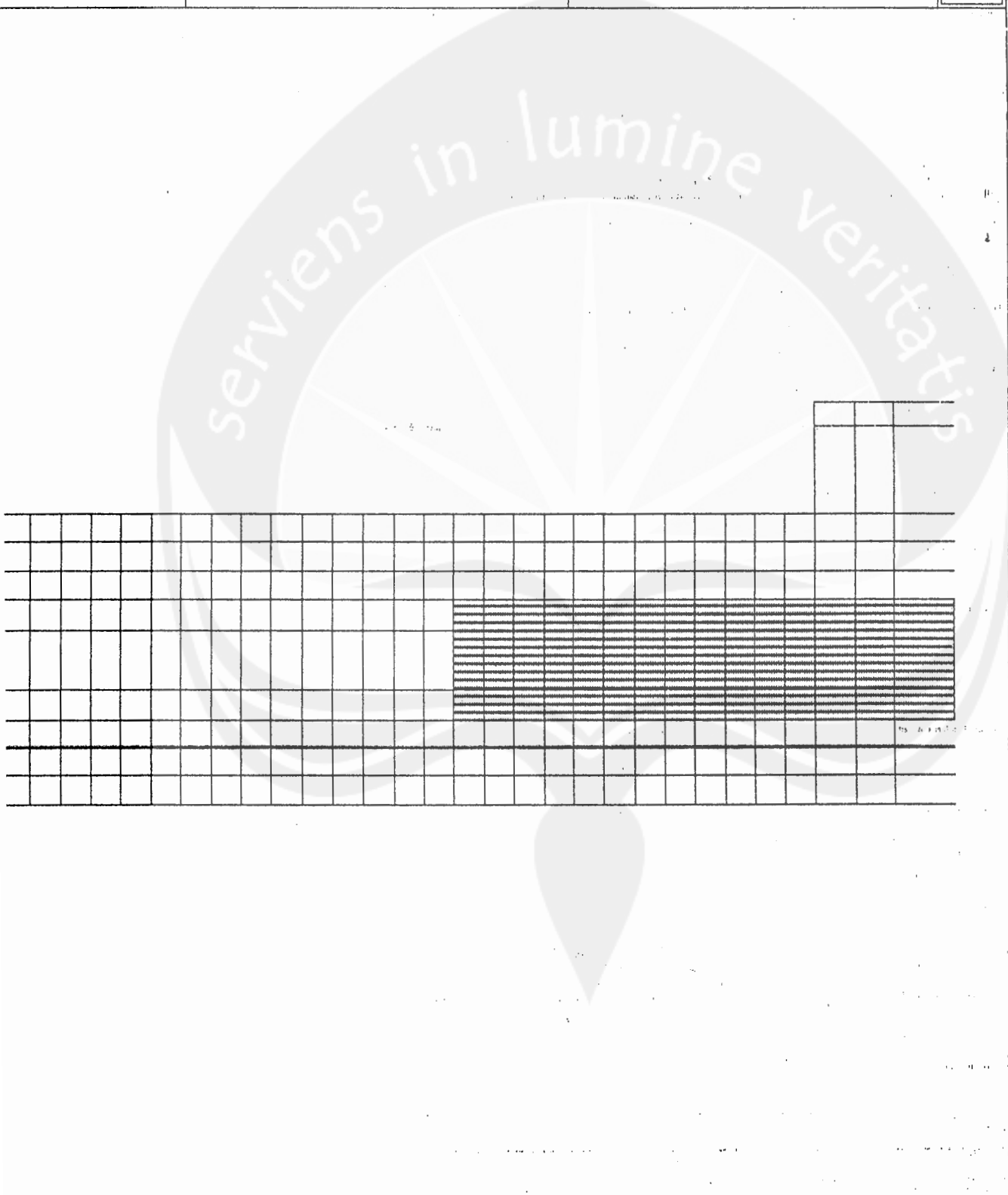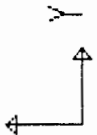HIDDEN LINES

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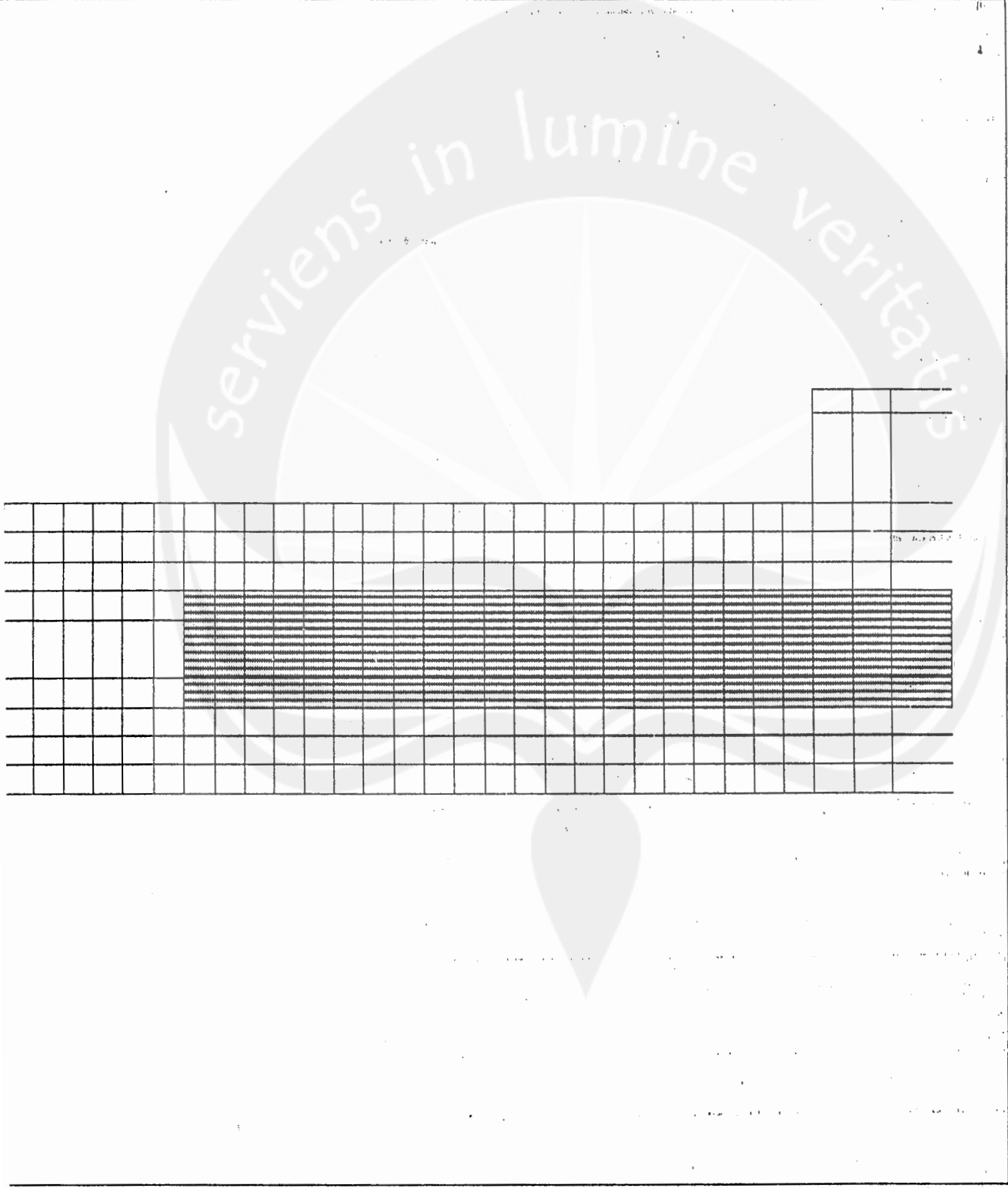BATAVIA
UNDEFORMED
SHAPE

OPTIONS
WIRE FRAME

SAP90

Y

BATAVIA
UNDEFORMED
SHAPE

OPTIONS
HIDDEN LINES

SAP90

Y

BATAVIA
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BATAVIA
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