

## DAFTAR PUSTAKA

- SALMON, CHARLES G., DAN JOHN E. JOHNSON. 1991. Struktur Baja :Desain dan Perilaku Jilid 2. Jakarta : Erlangga.
- SETIAWAN, AGUS. 2008. Perencanaan Struktur Baja Dengan Metode LRFD (berdasarkan SNI 03-1729-2002). Jakarta : Erlangga.
- SUPROBO, PRIYO.2000. Desain Balok Komposit Baja Beton. Surabaya : Jurusan Teknik Sipil FTSP ITS.
- TEDIA ANAMIKA.,MARU SAVITA. 2014. Cost, Analysis and Design of Steel-Concrete Composite Structure Rcc Structure. Journal of Mechanical and Civil Engineering Volume 11, Issue 1 Ver.II
- WIDIARSA, IDA BAGUS RAI., dan Putu Deskarta. 2007. Kuat Geser Baja Komposit Dengan Variasi Tinggi Penghubung Geser Tipe-T Ditinjau dari Uji Geser Murni. Jurnal Ilmiah Teknik Sipil Vol. 11, No 1.
- DIAN RAHMAT HARDIANTO, 2017. Modifikasi apartemen pavilion permata menggunakan struktur komposit baja beton. ITS Surabaya
- STANDAR SNI 1727:2020., “Beban Minimum Untuk Perancangan Bangunan Gedung dan Struktur Lain” Badan Standarisasi Nasional, 2013.
- STANDAR SNI 1726:2019., “Tata cara perencanaan ketahanan gempa untuk struktur bangunan gedung dan non gedung” Badan Standarisasi Nasional, 2019.
- STANDAR SNI 2847:2019., “Persyaratan beton struktural untuk bangunan gedung dan penjelasan” Badan Standarisasi Nasional, 2019.
- STANDAR SNI 1729:2020., “Spesifikasi untuk bangunan gedung baja struktural” Badan Standarisasi Nasional, 2019.

**Super Floor Deck®** adalah bahan lembaran panel berbentuk plat gelombang yang terbuat dari baja struktural bermutu tinggi dengan High-tensile steel JIS 3302 (570 N/mm<sup>2</sup>), dan berfungsi sebagai bekisting tetap dan penulangan positif satu arah pada lantai beton bangunan bertingkat.

Tebal bahan yang tersedia adalah 0.75 mm dan 1.00 mm dengan lapisan seng minimum 220 gr/m<sup>2</sup>.

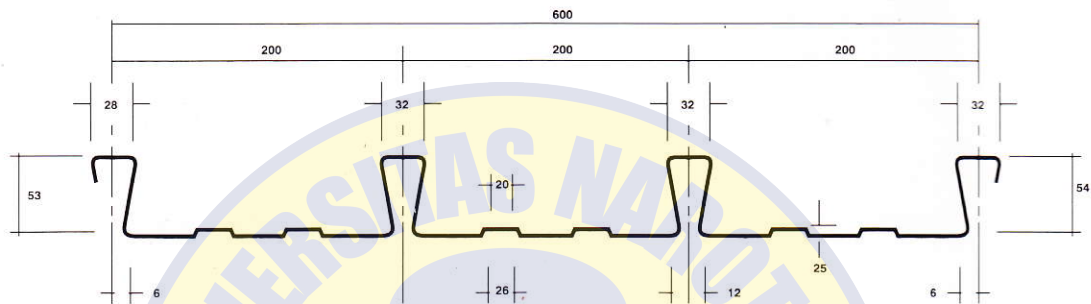
**Super Floor Deck®** dapat dipesan sesuai panjang yang dibutuhkan. Untuk memudahkan dalam pemasangan dan pengangkutan, dianjurkan panjang maximum 12 meter.

#### KEUNGGULAN-KEUNGGULAN **Super Floor Deck®**

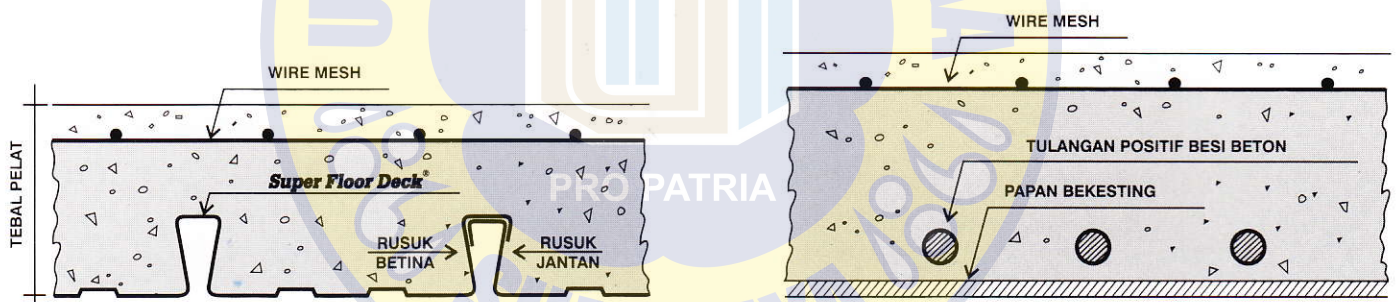
- pemasangan yang cepat dan mudah.
- Sebagai pengganti tulangan positif searah.
- Ketahanannya terhadap kebakaran lebih baik.
- Dapat difinishing dengan cat sebagai plafond.
- Baja berkekuatan tinggi yang memberikan platform kerja yang lebih aman.

#### SPESIFIKASI

Bentuk gelombang dan ukuran **Super Floor Deck®**



Berat per satuan luas : 10,10 Kg/M<sup>2</sup> untuk ketebalan 0,75 mm  
 Berat per satuan panjang : 6,06 Kg/M<sup>2</sup>



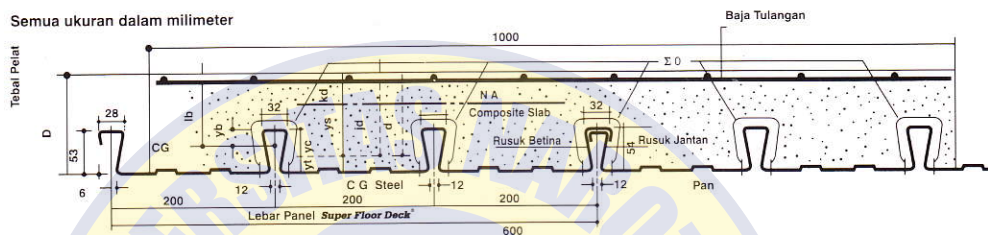
### SUPER KOMPOSIT PELAT BETON

### KONVESIONAL PELAT BETON

| PERBANDINGAN               | Jenis Bekisting          | Bentang m | Beban kg/m <sup>2</sup> | Tebal cm | Tulangan Positif |
|----------------------------|--------------------------|-----------|-------------------------|----------|------------------|
| KONVENSIONAL PELAT BETON   | Kayu                     | 4.5       | 400                     | 14       | O 12 mm          |
| SUPER KOMPOSIT PELAT BETON | <b>Super Floor Deck®</b> | 4.5       | 400                     | 11       | Tidak Perlu      |



Semua ukuran dalam milimeter



- Menunjukkan tabel plat beton untuk bentang tunggal, bentang ganda, dan bentang menerus.
- Kebutuhan tulangan negatif, serta perhitungan luas penampangnya, pada bentang ganda atau bentang menerus.
- Ketebalan plat beton pada bentang tertentu, serta berbagai beban (Super Imposed Load)
- Tiang penyangga sementara yang dibutuhkan untuk meniadakan lendutan awal pada waktu beton dan **Super Floor Deck**<sup>®</sup> belum berfungsi.

| Tebal Pelat | Berat per satuan luas | Luas penampang  | Penampang efektif penuh |      | Momen lentur positif              |                                   | Momen lentur negatif              |                                   |                                   | Ie                                | Gaya reaksi aman untuk perletakan tepi |                     |                         | Gaya reaksi aman untuk perletakan tengah |                     |                         |       |
|-------------|-----------------------|-----------------|-------------------------|------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------------|---------------------|-------------------------|------------------------------------------|---------------------|-------------------------|-------|
|             |                       |                 | Yc                      | Yt   | Ip                                | Zpc                               | Zpt                               | ln                                | Znc                               |                                   | Znt                                    | 10 mm perletakan    | Pertambahan per 10 mm   | max                                      | 10 mm perletakan    | Pertambahan per 10 mm   | Max   |
| mm          | kg / m <sup>2</sup>   | mm <sup>2</sup> | mm                      | mm   | 10 <sup>4</sup> x mm <sup>4</sup> | 10 <sup>3</sup> x mm <sup>3</sup> | 10 <sup>3</sup> x mm <sup>3</sup> | 10 <sup>4</sup> x mm <sup>4</sup> | 10 <sup>3</sup> x mm <sup>3</sup> | 10 <sup>3</sup> x mm <sup>3</sup> | 10 <sup>4</sup> x mm <sup>4</sup>      | 10 mm Of Bearing KN | Increment, Per 10 mm KN |                                          | 10 mm Of Bearing KN | Increment, Per 10 mm KN |       |
| 0.75        | 10.1                  | 1241            | 38.6                    | 15.4 | 0.511                             | 13.15                             | 33.14                             | 0.309                             | 10.21                             | 10.73                             | 0.425                                  | 3.76                | 0.99                    | 8.11                                     | 15.01               | 1.14                    | 19.19 |

$$= \ln(1.26) - 0.26 \ln(1.26)$$
$$= 1p(1.26 + 0.261p)/11,$$

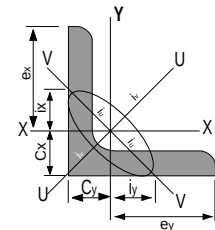
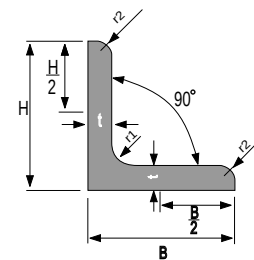
| Super Floor Deck*<br>0.75 MM                 |                      | BENTANG TUNGGAL TANPA TULANGAN NEGATIF<br>SAMPLE SPAN CONDITION WITHOUT NEGATIVE REINFORCEMENT |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        | BENTANG GANDA DENGAN TULANGAN NEGATIF<br>DOUBLE SPAN CONDITIONS WITH NEGATIVE REINFORCEMENT |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        |                                        | BENTANG MENERUS DENGAN TULANGAN NEGATIF<br>MULTIPLE SPAN CONDITIONS WITH NEGATIVE REINFORCEMENT |      |      |    |      |    |     |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------|----------------------|------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------|------|------|----|------|----|-----|--|--|--|--|--|--|--|--|--|--|--|
| BEBAN BERGUNA<br>SUPER IMPOSED LOAD<br>KG/M2 |                      | 200                                                                                            | 300                                    | 400                                    | 500                                    | 600                                    | 750                                    | 1000                                   | 200                                    | 300                                    | 400                                    | 500                                                                                         | 600                                    | 750                                    | 1000                                   | 200                                    | 300                                    | 400                                    | 500                                    | 600                                    | 700                                    | 1000                                   | 200                                    | 300                                    | 400                                    | 500                                    | 600                                    | 700                                    | 1000                                   |                                                                                                 |      |      |    |      |    |     |  |  |  |  |  |  |  |  |  |  |  |
| TIKAP<br>PENTANGGA<br>PROPPING               | BENTANG<br>SPAN<br>M | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM                                                         | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM                                                      | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM | TERBAL<br>PELAT<br>SLAB<br>DEPTH<br>CM |                                                                                                 |      |      |    |      |    |     |  |  |  |  |  |  |  |  |  |  |  |
| TANPA<br>PENTANGGA<br>NO. PROPS              | 1.50                 | 9                                                                                              | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 0.75                                   | 9                                      | 0.91                                                                                        | 9                                      | 1.07                                   | 9                                      | 1.24                                   | 9                                      | 1.40                                   | 9                                      | 1.66                                   | 9                                      | 2.06                                   | 9                                      | 0.59                                   | 9                                      | 0.73                                   | 9                                      | 0.85                                   | 9                                      | 0.98                                                                                            | 9    | 1.11 | 9  | 1.31 | 9  | 1.6 |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 1.75                 | 9                                                                                              | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 1.03                                   | 9                                      | 1.25                                                                                        | 9                                      | 1.48                                   | 9                                      | 1.71                                   | 9                                      | 1.94                                   | 9                                      | 2.29                                   | 10                                     | 2.53                                   | 9                                      | 0.81                                   | 9                                      | 0.99                                   | 9                                      | 1.17                                   | 9                                      | 1.35                                                                                            | 9    | 1.53 | 9  | 1.81 | 10 | 2.1 |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 2.00                 | 9                                                                                              | 9                                      | 9                                      | 9                                      | 9                                      | 9                                      | 10                                     | 9                                      | 1.36                                   | 9                                      | 1.65                                                                                        | 9                                      | 1.95                                   | 9                                      | 2.26                                   | 9                                      | 2.57                                   | 9                                      | 3.04                                   | 10                                     | 3.35                                   | 9                                      | 1.07                                   | 9                                      | 1.31                                   | 9                                      | 1.55                                   | 9                                      | 1.79                                                                                            | 9    | 2.03 | 9  | 2.39 | 10 | 2.6 |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 2.25                 | 9                                                                                              | 9                                      | 9                                      | 9                                      | 9                                      | 10                                     | 11                                     | 9                                      | 1.73                                   | 9                                      | 2.12                                                                                        | 9                                      | 2.50                                   | 9                                      | 2.90                                   | 9                                      | 3.29                                   | 9                                      | 3.89                                   | 11                                     | 3.85                                   | 9                                      | 1.37                                   | 9                                      | 1.68                                   | 9                                      | 1.98                                   | 9                                      | 2.30                                                                                            | 9    | 2.60 | 9  | 3.08 | 11 | 3.1 |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 2.50                 | 9                                                                                              | 9                                      | 9                                      | 9                                      | 9                                      | 10                                     | 14                                     | 9                                      | 2.16                                   | 9                                      | 2.65                                                                                        | 9                                      | 3.13                                   | 9                                      | 3.62                                   | 9                                      | 4.11                                   | 10                                     | 4.29                                   | 14                                     | 3.69                                   | 9                                      | 1.71                                   | 9                                      | 2.09                                   | 9                                      | 2.48                                   | 9                                      | 2.86                                                                                            | 9    | 3.25 | 10 | 3.39 | 14 | 2.9 |  |  |  |  |  |  |  |  |  |  |  |
| SATU BARIS<br>PENTANGGA<br>ONE ROW<br>PROPS  | 2.75                 | 10                                                                                             | 10                                     | 10                                     | 10                                     | 11                                     | 12                                     | 15                                     | 9                                      | 2.64                                   | 9                                      | 3.24                                                                                        | 9                                      | 3.83                                   | 10                                     | 3.94                                   | 11                                     | 4.02                                   | 12                                     | 4.29                                   | 15                                     | 4.23                                   | 9                                      | 2.09                                   | 9                                      | 2.25                                   | 9                                      | 3.02                                   | 10                                     | 3.11                                                                                            | 11   | 3.18 | 12 | 3.39 | 15 | 3.1 |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 3.00                 | 10                                                                                             | 10                                     | 10                                     | 11                                     | 12                                     | 13                                     |                                        | 9                                      | 3.17                                   | 9                                      | 3.87                                                                                        | 10                                     | 4.10                                   | 11                                     | 4.28                                   | 12                                     | 4.41                                   | 13                                     | 4.74                                   |                                        |                                        | 9                                      | 2.51                                   | 9                                      | 3.07                                   | 10                                     | 3.25                                   | 11                                     | 3.38                                                                                            | 12   | 3.49 | 13 | 3.75 |    |     |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 3.25                 | 11                                                                                             | 11                                     | 11                                     | 12                                     | 13                                     | 14                                     |                                        | 10                                     | 3.41                                   | 10                                     | 4.13                                                                                        | 10                                     | 4.87                                   | 12                                     | 4.65                                   | 13                                     | 4.83                                   | 14                                     | 5.22                                   |                                        |                                        | 10                                     | 2.70                                   | 10                                     | 3.27                                   | 10                                     | 3.84                                   | 12                                     | 3.67                                                                                            | 13   | 3.82 | 14 | 4.12 |    |     |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 3.50                 | 12                                                                                             | 12                                     | 12                                     | 13                                     | 13                                     | 15                                     |                                        | 11                                     | 3.68                                   | 11                                     | 4.42                                                                                        | 11                                     | 5.18                                   | 12                                     | 5.44                                   | 13                                     | 5.63                                   | 15                                     | 5.71                                   |                                        |                                        | 11                                     | 2.90                                   | 11                                     | 3.49                                   | 11                                     | 4.09                                   | 12                                     | 4.29                                                                                            | 13   | 4.46 | 15 | 4.51 |    |     |  |  |  |  |  |  |  |  |  |  |  |
|                                              | 3.75                 | 13                                                                                             | 13                                     | 13                                     | 13                                     | 14                                     |                                        |                                        | 11                                     | 4.25                                   | 11                                     | 5.11                                                                                        | 11                                     | 5.99                                   | 13                                     | 5.83                                   | 14                                     | 6.09                                   |                                        |                                        |                                        |                                        | 11                                     | 3.36                                   | 11                                     | 4.04                                   | 11                                     | 4.73                                   | 13                                     | 4.61                                                                                            | 14   | 4.81 |    |      |    |     |  |  |  |  |  |  |  |  |  |  |  |
| DUA BARIS<br>PENTANGGA<br>TWO ROW<br>PROPS   | 4.00                 | 14                                                                                             | 14                                     | 14                                     | 14                                     | 15                                     |                                        |                                        | 12                                     | 4.55                                   | 12                                     | 5.43                                                                                        | 12                                     | 6.33                                   | 14                                     | 6.24                                   | 15                                     | 6.55                                   |                                        |                                        |                                        |                                        | 12                                     | 3.59                                   | 12                                     | 4.28                                   | 12                                     | 4.99                                   | 14                                     | 4.93                                                                                            | 15</ |      |    |      |    |     |  |  |  |  |  |  |  |  |  |  |  |

- MUTU BAJA TULANGAN U - 48

# EQUAL ANGLE

Metric Size

| STANDARD SECTIONAL DIMENSIONS |    |                |                |                 | SECTION AREA | UNIT WEIGHT |        |       | INFORMATIVE REFERENCE |                                 |                                 |                    |                            |                                 |                    |                    | REMARKS |
|-------------------------------|----|----------------|----------------|-----------------|--------------|-------------|--------|-------|-----------------------|---------------------------------|---------------------------------|--------------------|----------------------------|---------------------------------|--------------------|--------------------|---------|
|                               |    |                |                |                 |              |             |        |       | CENTER OF GRAVITY     | GEOMETRICAL MOMENT OF INERTIA   |                                 |                    | RADIUS OF GYRATION OF AREA |                                 |                    | MODULUS OF SECTION |         |
|                               |    |                |                |                 |              |             |        |       |                       | C <sub>x</sub> = C <sub>y</sub> | I <sub>x</sub> = I <sub>y</sub> | Max I <sub>u</sub> | Min I <sub>v</sub>         | i <sub>x</sub> = i <sub>y</sub> | Max i <sub>u</sub> | Min i <sub>v</sub> |         |
| H x B                         | t  | r <sub>1</sub> | r <sub>2</sub> | A               | kg/m         | kg/6m       | kg/12m | cm    | cm <sup>4</sup>       | cm <sup>4</sup>                 | cm <sup>4</sup>                 | cm                 | cm                         | cm                              | cm <sup>3</sup>    |                    |         |
| mm x mm                       | mm | mm             | mm             | cm <sup>2</sup> |              |             |        |       |                       |                                 |                                 |                    |                            |                                 |                    |                    |         |
| 50 x 50                       | 5  | 6.5            | 3              | 4.802           | 3.77         | 22.62       | 45.24  | 1.410 | 11.100                | 17.50                           | 4.580                           | 1.520              | 1.91                       | 0.98                            | 3.080              |                    |         |
| 50 x 50                       | 6  | 6.5            | 4.5            | 5.644           | 4.43         | 26.58       | 53.16  | 1.440 | 12.600                | 20.00                           | 5.230                           | 1.500              | 1.88                       | 0.96                            | 3.550              |                    |         |
| 60 x 60                       | 5  | 6.5            | 3              | 5.802           | 4.55         | 27.5        | 55     | 1.660 | 19.600                | 31.20                           | 8.090                           | 1.840              | 2.32                       | 1.18                            | 4.520              |                    |         |
| 60 x 60                       | 6  | 8              | 4              | 6.910           | 5.40         | 32.5        | 65     | 1.700 | 22.790                | 36.16                           | 9.420                           | 1.820              | 2.29                       | 1.17                            | 5.280              |                    |         |
| 65 x 65                       | 5  | 8.5            | 3              | 6.367           | 5.00         | 30          | 60     | 1.770 | 25.300                | 40.10                           | 10.500                          | 1.990              | 2.51                       | 1.28                            | 5.350              |                    |         |
| 65 x 65                       | 6  | 8.5            | 4              | 7.527           | 5.91         | 35.5        | 71     | 1.810 | 29.400                | 46.60                           | 12.200                          | 1.980              | 2.49                       | 1.27                            | 6.260              |                    |         |
| 65 x 65                       | 8  | 8.5            | 6              | 9.761           | 7.66         | 46          | 92     | 1.880 | 36.800                | 58.30                           | 15.300                          | 1.940              | 2.44                       | 1.25                            | 7.960              |                    |         |
| 70 x 70                       | 6  | 8.5            | 4              | 8.127           | 6.38         | 38.5        | 77     | 1.930 | 37.100                | 58.90                           | 15.300                          | 2.140              | 2.69                       | 1.37                            | 7.330              |                    |         |
| 75 x 75                       | 6  | 8.5            | 4              | 8.727           | 6.85         | 41          | 82     | 2.060 | 46.100                | 73.20                           | 19.000                          | 2.300              | 2.90                       | 1.48                            | 8.470              |                    |         |
| 80 x 80                       | 6  | 8.5            | 4              | 9.230           | 7.32         | 43.9        | 87.8   | 2.180 | 56.400                | 89.60                           | 23.200                          | 2.460              | 3.10                       | 1.58                            | 9.700              |                    |         |
| 90 x 90                       | 7  | 10             | 5              | 12.220          | 9.59         | 57.6        | 115.2  | 2.460 | 93.000                | 148.00                          | 38.300                          | 2.760              | 3.48                       | 1.77                            | 14.200             |                    |         |
| 90 x 90                       | 10 | 10             | 7              | 17.000          | 13.30        | 80          | 160    | 2.570 | 125.000               | 199.00                          | 51.700                          | 2.710              | 3.42                       | 1.74                            | 19.500             |                    |         |
| 100 x 100                     | 7  | 10             | 5              | 13.620          | 10.70        | 64          | 128    | 2.710 | 129.000               | 205.00                          | 53.200                          | 3.080              | 3.88                       | 1.98                            | 17.700             |                    |         |
| 100 x 100                     | 10 | 10             | 7              | 19.000          | 14.90        | 89.5        | 179    | 2.820 | 175.000               | 278.00                          | 72.000                          | 3.040              | 3.83                       | 1.95                            | 24.400             |                    |         |
| 120 x 120                     | 8  | 12             | 5              | 18.760          | 14.70        | 88          | 176    | 3.240 | 258.000               | 410.00                          | 106.000                         | 3.710              | 4.67                       | 2.38                            | 29.500             |                    |         |
| 120 x 120                     | 11 | 13             | 6.5            | 25.370          | 19.90        | 119.5       | 239    | 3.300 | 340.000               | 541.00                          | 140.000                         | 3.660              | 4.62                       | 2.35                            | 39.360             |                    |         |
| 120 x 120                     | 12 | 13             | 6.5            | 27.540          | 21.60        | 130         | 260    | 3.400 | 367.000               | 583.00                          | 151.000                         | 3.650              | 4.60                       | 2.35                            | 42.680             |                    |         |
| 130 x 130                     | 9  | 12             | 6              | 22.740          | 17.90        | 107.4       | 214.8  | 3.530 | 366.000               | 583.00                          | 150.000                         | 4.010              | 5.06                       | 2.57                            | 38.700             |                    |         |
| 130 x 130                     | 12 | 12             | 8.5            | 29.760          | 23.40        | 140.5       | 281    | 3.640 | 467.000               | 743.00                          | 192.000                         | 3.960              | 5.00                       | 2.54                            | 49.900             |                    |         |
| 150 x 150                     | 12 | 14             | 7              | 34.770          | 27.30        | 164         | 328    | 4.140 | 740.000               | 1,180.00                        | 304.000                         | 4.610              | 5.82                       | 2.96                            | 68.100             |                    |         |
| 150 x 150                     | 15 | 14             | 10             | 42.740          | 33.60        | 202         | 404    | 4.240 | 888.000               | 1,410.00                        | 365.000                         | 4.560              | 5.75                       | 2.92                            | 82.600             |                    |         |
| 150 x 150                     | 19 | 14             | 10             | 53.380          | 41.90        | 251.5       | 503    | 4.400 | 1,090.000             | 1,730.00                        | 451.000                         | 4.520              | 5.69                       | 2.91                            | 103.000            |                    |         |
| 175 x 175                     | 12 | 15             | 11             | 40.520          | 31.80        | 191         | 382    | 4.730 | 1,170.000             | 1,860.00                        | 480.000                         | 5.380              | 6.78                       | 3.44                            | 91.800             |                    |         |
| 175 x 175                     | 15 | 15             | 11             | 50.210          | 39.40        | 236.5       | 473    | 4.850 | 1,440.000             | 2,290.00                        | 589.000                         | 5.350              | 6.75                       | 3.48                            | 114.000            |                    |         |
| 200 x 200                     | 15 | 17             | 12             | 57.750          | 45.30        | 272         | 544    | 5.460 | 2,180.000             | 3,470.00                        | 891.000                         | 6.140              | 7.75                       | 3.93                            | 150.000            |                    |         |
| 200 x 200                     | 20 | 17             | 12             | 76.000          | 59.70        | 358         | 716    | 5.670 | 2,820.000             | 4,490.00                        | 1,160.000                       | 6.090              | 7.68                       | 3.90                            | 197.000            |                    |         |
| 200 x 200                     | 25 | 17             | 12             | 93.750          | 73.60        | 442         | 884    | 5.860 | 3,420.000             | 5,420.00                        | 1,410.000                       | 6.040              | 7.61                       | 3.88                            | 242.000            |                    |         |
| 250 x 250                     | 25 | 24             | 12             | 119.400         | 93.70        | 562         | 1124   | 7.100 | 6,950.000             | 11,000.00                       | 2,860.000                       | 7.630              | 9.62                       | 4.89                            | 388.000            |                    |         |
| 250 x 250                     | 35 | 24             | 18             | 162.600         | 128.00       | 768         | 1536   | 7.450 | 9,110.000             | 14,400.00                       | 3,790.000                       | 7.490              | 9.42                       | 4.83                            | 519.000            |                    |         |

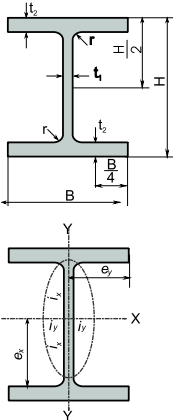


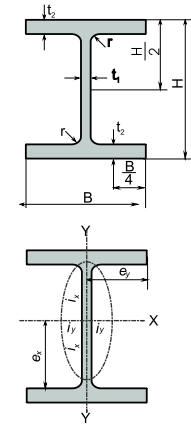
NOTE : Non standard sizes are available upon request and subject to minimum quantity



# WIDE FLANGE (IWF)

Metric Size | JIS 3192

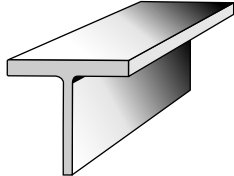
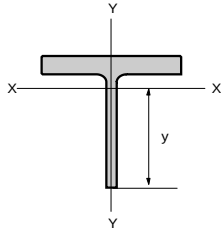
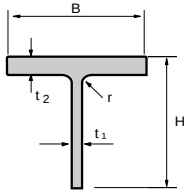
| STANDARD SECTIONAL DIMENSIONS |           |     |    |    | SECTION AREA    | UNIT WEIGHT     |                 | INFORMATIVE REFERENCE         |       |                            |                 |                    |      | REMARKS                                                                             |
|-------------------------------|-----------|-----|----|----|-----------------|-----------------|-----------------|-------------------------------|-------|----------------------------|-----------------|--------------------|------|-------------------------------------------------------------------------------------|
|                               |           |     |    |    |                 |                 |                 | GEOMETRICAL MOMENT OF INERTIA |       | RADIUS OF GYRATION OF AREA |                 | MODULUS OF SECTION |      |                                                                                     |
| Nominal Dimensional           | H x B     | t1  | t2 | r  | A               |                 |                 | Ix                            | Iy    | ix                         | iy              | Zy                 | Zy   |                                                                                     |
| mm                            | mm x mm   | mm  | mm | mm | cm <sup>2</sup> | cm <sup>4</sup> | cm <sup>4</sup> | cm                            | cm    | cm <sup>3</sup>            | cm <sup>3</sup> |                    |      |                                                                                     |
| 150 x 75                      | 150 x 75  | 5   | 7  | 8  | 17.85           | 14.00           | 168             | 666                           | 49.5  | 6.11                       | 1.66            | 88.8               | 13.2 |  |
| 150 x 100                     | 148 x 100 | 6   | 9  | 11 | 26.84           | 21.10           | 253.2           | 1 020                         | 151   | 6.17                       | 2.37            | 138                | 30.1 |                                                                                     |
| 200 x 100                     | 198 x 99  | 4.5 | 7  | 11 | 23.18           | 18.20           | 218.4           | 1 580                         | 114   | 8.26                       | 2.21            | 160                | 23.0 |                                                                                     |
|                               | 200 x 100 | 5.5 | 8  | 11 | 27.16           | 21.30           | 255.6           | 1 840                         | 134   | 8.24                       | 2.22            | 184                | 26.8 |                                                                                     |
| 200 x 150                     | 194 x 150 | 6   | 9  | 12 | 38.80           | 30.60           | 367.2           | 2 675                         | 507   | 8.30                       | 3.60            | 275.8              | 67.6 |                                                                                     |
| 250 x 125                     | 248 x 124 | 5   | 8  | 12 | 32.68           | 25.70           | 308.4           | 3 540                         | 255   | 10.4                       | 2.79            | 285                | 41.1 |                                                                                     |
|                               | 250 x 125 | 6   | 9  | 12 | 37.66           | 29.60           | 355.2           | 4 050                         | 294   | 10.4                       | 2.79            | 324                | 47.0 |                                                                                     |
| 300 x 150                     | 298 x 149 | 5.5 | 8  | 13 | 40.80           | 32.0            | 384             | 6 320                         | 442   | 12.4                       | 3.29            | 424                | 59.3 |                                                                                     |
|                               | 300 x 150 | 6.5 | 9  | 13 | 46.78           | 36.70           | 440.4           | 7 210                         | 508   | 12.4                       | 3.29            | 481                | 67.7 |                                                                                     |
| 350 x 175                     | 346 x 174 | 6   | 9  | 14 | 52.68           | 41.40           | 469.8           | 11 100                        | 792   | 14.5                       | 3.88            | 641                | 91.0 |                                                                                     |
|                               | 350 x 175 | 7   | 11 | 14 | 63.14           | 49.60           | 595.2           | 13 600                        | 984   | 14.7                       | 3.95            | 775                | 112  |                                                                                     |
| 400 x 200                     | 396 x 199 | 7   | 11 | 16 | 72.16           | 56.60           | 679.2           | 20 000                        | 1 450 | 16.7                       | 4.48            | 1 010              | 145  |                                                                                     |
|                               | 400 x 200 | 8   | 13 | 16 | 84.1            | 66.0            | 792             | 23 700                        | 1 740 | 16.8                       | 4.54            | 1 190              | 174  |                                                                                     |
| 450 x 200                     | 450 x 200 | 9   | 14 | 18 | 96.8            | 76.0            | 912             | 33 500                        | 1 870 | 18.6                       | 4.40            | 1 490              | 187  |                                                                                     |
| 500 x 200                     | 500 x 200 | 10  | 16 | 20 | 114.2           | 89.6            | 1075.2          | 47 800                        | 2 140 | 20.5                       | 4.43            | 1 910              | 214  |                                                                                     |
| 600 x 200                     | 600 x 200 | 11  | 17 | 22 | 134.4           | 106             | 1272            | 77 600                        | 2 280 | 24.0                       | 4.12            | 2 590              | 228  |                                                                                     |



NOTE : Non standard sizes are available upon request and subject to minimum quantity

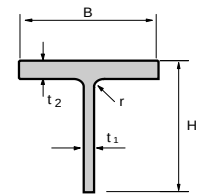
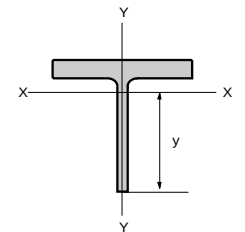
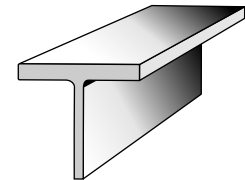
# T-Beam

Metric Size | JIS 3192

| Standard Sectional Dimension |                  |                  |                |                |               | Sectional Area  | Unit Weight | Informative Reference |                               |                 |                            |                |                    |                 | Remarks                                                                                                                                                                                                                                                            |
|------------------------------|------------------|------------------|----------------|----------------|---------------|-----------------|-------------|-----------------------|-------------------------------|-----------------|----------------------------|----------------|--------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sectional Index              | Depth of Section | Width of Section | Thickness      |                | Corner Radius |                 |             | Center of Gravity     | Geometrical Moment of Inertia |                 | Radius of Gyration of Area |                | Modulus of Section |                 |                                                                                                                                                                                                                                                                    |
|                              |                  |                  | Web            | Flange         |               |                 |             |                       | I <sub>x</sub>                | I <sub>y</sub>  | i <sub>x</sub>             | i <sub>y</sub> | Z <sub>x</sub>     | Z <sub>y</sub>  |                                                                                                                                                                                                                                                                    |
|                              | HB               | H                | t <sub>1</sub> | t <sub>2</sub> | r             |                 |             |                       |                               |                 |                            |                |                    |                 |                                                                                                                                                                                                                                                                    |
| mm                           | mm               | mm               | mm             | mm             | mm            | cm <sup>2</sup> | kg/m        | mm                    | cm <sup>4</sup>               | cm <sup>4</sup> | cm                         | cm             | cm <sup>3</sup>    | cm <sup>3</sup> |                                                                                                                                                                                                                                                                    |
| T 50 x 100                   | 50               | 100              | 6              | 8              | 10            | 10.95           | 8.6         | 40                    | 16                            | 67              | 1.2                        | 2.47           | 4                  | 13.4            | <br><br> |
| T 62.5 x 125                 | 62.5             | 125              | 6.5            | 9              | 10            | 15.16           | 11.9        | 50.6                  | 35                            | 147             | 1.51                       | 3.11           | 6.9                | 23.5            |                                                                                                                                                                                                                                                                    |
| T 75 x 75                    | 75               | 75               | 5              | 7              | 8             | 8.93            | 7           | 57                    | 42                            | 25              | 2.18                       | 1.67           | 7.4                | 6.6             |                                                                                                                                                                                                                                                                    |
| T 75 x 150                   | 75               | 150              | 7              | 10             | 11            | 20.07           | 15.75       | 61.3                  | 66                            | 282             | 1.81                       | 3.75           | 10.8               | 37.6            |                                                                                                                                                                                                                                                                    |
| T 100 x 100                  | 100              | 100              | 5.5            | 8              | 11            | 13.58           | 10.65       | 71.7                  | 114                           | 67              | 2.9                        | 2.22           | 14.8               | 13.4            |                                                                                                                                                                                                                                                                    |
| T 99 x 100                   | 99               | 100              | 4.5            | 7              | 11            | 11.59           | 9.1         | 78.1                  | 94                            | 58              | 2.84                       | 2.25           | 12                 | 11.7            |                                                                                                                                                                                                                                                                    |
| T 87.5 x 175                 | 87.5             | 175              | 7.5            | 11             | 12            | 25.61           | 20.1        | 72                    | 114                           | 492             | 2.11                       | 4.38           | 15.8               | 56.2            |                                                                                                                                                                                                                                                                    |
| T 100 x 200                  | 100              | 200              | 8              | 12             | 13            | 31.77           | 24.95       | 82.7                  | 184                           | 801             | 2.41                       | 5.02           | 22.2               | 80.1            |                                                                                                                                                                                                                                                                    |
| T 125 x 125                  | 125              | 125              | 6              | 9              | 12            | 18.83           | 14.8        | 97.2                  | 248                           | 147             | 3.63                       | 2.79           | 25.5               | 23.5            |                                                                                                                                                                                                                                                                    |
| T 124 x 124                  | 124              | 124              | 5              | 8              | 12            | 16.34           | 12.85       | 97.7                  | 207                           | 127             | 3.56                       | 2.79           | 21.2               | 20.5            |                                                                                                                                                                                                                                                                    |
| T 125 x 250                  | 125              | 250              | 9              | 14             | 16            | 46.09           | 36.2        | 104.2                 | 411                           | 1825            | 2.98                       | 6.29           | 39.4               | 146             |                                                                                                                                                                                                                                                                    |
| T 150 x 150                  | 150              | 150              | 6.5            | 9              | 13            | 23.39           | 18.35       | 115.9                 | 463                           | 254             | 4.45                       | 3.29           | 39.9               | 33.8            |                                                                                                                                                                                                                                                                    |
| T 149 x 149                  | 149              | 149              | 5.5            | 8              | 13            | 20.4            | 16          | 116.4                 | 393                           | 221             | 4.39                       | 3.29           | 33.7               | 29.6            |                                                                                                                                                                                                                                                                    |
| T 150 x 300                  | 150              | 300              | 10             | 15             | 18            | 59.9            | 47          | 125.3                 | 796                           | 3378            | 3.64                       | 7.51           | 63.5               | 225.2           |                                                                                                                                                                                                                                                                    |
| T 175 x 175                  | 175              | 175              | 7              | 11             | 14            | 31.57           | 24.8        | 137.5                 | 814                           | 492             | 5.08                       | 3.95           | 59.2               | 56.3            |                                                                                                                                                                                                                                                                    |
| T 173 x 174                  | 173              | 174              | 6              | 9              | 14            | 26.34           | 20.7        | 136                   | 678                           | 396             | 5.07                       | 3.88           | 49.9               | 45.5            |                                                                                                                                                                                                                                                                    |
| T 175 x 350                  | 175              | 350              | 12             | 19             | 20            | 86.95           | 68.85       | 146.4                 | 1515                          | 6794            | 4.17                       | 8.84           | 103.5              | 388.2           |                                                                                                                                                                                                                                                                    |
| T 200 x 200                  | 200              | 200              | 8              | 13             | 16            | 42.06           | 33          | 157.7                 | 1395                          | 868             | 5.76                       | 4.54           | 88.5               | 86.8            |                                                                                                                                                                                                                                                                    |
| T 198 x 199                  | 198              | 199              | 7              | 11             | 16            | 36.08           | 28.3        | 156.3                 | 1193                          | 723             | 5.75                       | 4.48           | 76.3               | 72.7            |                                                                                                                                                                                                                                                                    |
| T 200 x 400                  | 200              | 400              | 13             | 21             | 22            | 109.35          | 86          | 167.9                 | 2470                          | 11207           | 4.75                       | 10.12          | 147.1              | 560.4           |                                                                                                                                                                                                                                                                    |
| T 225 x 200                  | 225              | 200              | 9              | 14             | 18            | 48.38           | 38          | 173.5                 | 2155                          | 936             | 6.67                       | 4.4            | 124.2              | 93.6            |                                                                                                                                                                                                                                                                    |
| T 250 x 200                  | 250              | 200              | 10             | 16             | 20            | 57.1            | 44.8        | 190.5                 | 3210                          | 1071            | 7.5                        | 4.33           | 168.5              | 107.1           |                                                                                                                                                                                                                                                                    |
| T 300 x 200                  | 300              | 200              | 11             | 17             | 22            | 67.2            | 53          | 221.6                 | 5786                          | 1139            | 9.29                       | 4.12           | 261.9              | 113.9           |                                                                                                                                                                                                                                                                    |
| T 294 x 300                  | 294              | 300              | 12             | 20             | 28            | 96.25           | 75.5        | 233.2                 | 6695                          | 4509            | 8.34                       | 6.84           | 295.3              | 300.6           |                                                                                                                                                                                                                                                                    |
| T 350 x 300                  | 350              | 300              | 13             | 24             | 28            | 117.75          | 92.5        | 274.5                 | 12015                         | 5412            | 10.1                       | 6.78           | 447.3              | 360.8           |                                                                                                                                                                                                                                                                    |
| T 400 x 300                  | 400              | 300              | 14             | 26             | 28            | 133.7           | 105         | 308.3                 | 18787                         | 5866            | 11.85                      | 6.62           | 609.5              | 391.1           |                                                                                                                                                                                                                                                                    |

## NOTE :

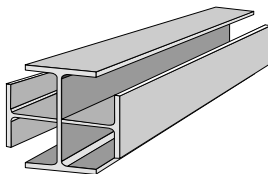
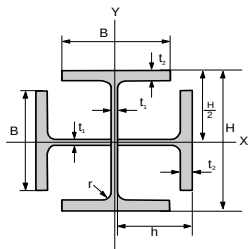
- Material specification refer to Wide Flange (IWF)
- Tolerance H= ±2mm
- Non standard sizes are available upon request and subject to minimum quantity

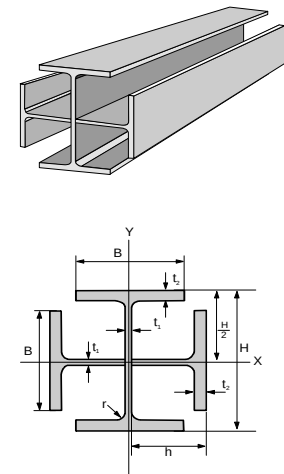




# King Cross

Metric Size

| Standard Sectional Dimension |                  |                  |           |        |               | Sectional Area  | Unit Weight | Informative Reference         |                 |                            |       |                    |                 | Remarks                                                                                                                                                                    |
|------------------------------|------------------|------------------|-----------|--------|---------------|-----------------|-------------|-------------------------------|-----------------|----------------------------|-------|--------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sectional Index              | Depth of Section | Width of Section | Thickness |        | Corner Radius |                 |             | Geometrical Moment of Inertia |                 | Radius of Gyration of Area |       | Modulus of Section |                 |                                                                                                                                                                            |
|                              |                  |                  | Web       | Flange |               |                 |             | $I_x$                         | $I_y$           | $i_x$                      | $i_y$ | $Z_x$              | $Z_y$           |                                                                                                                                                                            |
|                              | H                | B                | $t_1$     | $t_2$  | r             |                 |             |                               |                 |                            |       |                    |                 |                                                                                                                                                                            |
| mm                           | mm               | mm               | mm        | mm     | mm            | cm <sup>2</sup> | kg/m        | cm <sup>4</sup>               | cm <sup>4</sup> | cm                         | cm    | cm <sup>3</sup>    | cm <sup>3</sup> |                                                                                                                                                                            |
| K 150 x 75                   | 150              | 75               | 5         | 7      | 8             | 35.7            | 28          | 716                           | 767             | 4.48                       | 4.64  | 95.4               | 99.1            | <br> |
| K 200 x 100                  | 200              | 100              | 5.5       | 8      | 11            | 54.32           | 42.6        | 1,974                         | 2,095           | 6.03                       | 6.21  | 197.4              | 203.9           |                                                                                                                                                                            |
| K 198 x 99                   | 198              | 99               | 4.5       | 7      | 11            | 46.36           | 36.4        | 1,694                         | 1,778           | 6.04                       | 6.23  | 171.1              | 175.6           |                                                                                                                                                                            |
| K 250 x 125                  | 250              | 125              | 6         | 9      | 12            | 75.32           | 59.2        | 4,344                         | 4,567           | 7.59                       | 7.79  | 347.5              | 356.9           |                                                                                                                                                                            |
| K 248 x 124                  | 248              | 124              | 5         | 8      | 12            | 65.36           | 51.4        | 3,765                         | 3,924           | 7.59                       | 7.75  | 303.6              | 310.2           |                                                                                                                                                                            |
| K 300 x 150                  | 300              | 150              | 6.5       | 9      | 13            | 93.56           | 73.4        | 7,718                         | 8,073           | 9.08                       | 9.29  | 514.5              | 526.9           |                                                                                                                                                                            |
| K 298 x 149                  | 298              | 149              | 5.5       | 8      | 13            | 81.6            | 64          | 6,762                         | 7,024           | 9.1                        | 9.28  | 453.8              | 462.9           |                                                                                                                                                                            |
| K 350 x 175                  | 350              | 175              | 7         | 11     | 14            | 126.28          | 99.2        | 14,554                        | 5,128           | 10.75                      | 10.95 | 831.7              | 847.5           |                                                                                                                                                                            |
| K 346 x 174                  | 346              | 174              | 6         | 9      | 14            | 105.36          | 82.8        | 11,892                        | 12,321          | 10.62                      | 10.62 | 687.4              | 700.0           |                                                                                                                                                                            |
| K 400 x 200                  | 400              | 200              | 8         | 13     | 16            | 168.24          | 132         | 25,440                        | 26,519          | 12.3                       | 12.55 | 1,272              | 1,299.9         |                                                                                                                                                                            |
| K 396 x 199                  | 396              | 199              | 7         | 11     | 16            | 144.32          | 113.2       | 21,450                        | 22,267          | 12.19                      | 12.19 | 1,083.3            | 1,105.1         |                                                                                                                                                                            |
| K 450 x 200                  | 450              | 200              | 9         | 14     | 18            | 193.52          | 152         | 35,370                        | 36,851          | 13.52                      | 13.52 | 1,572.0            | 1,605.7         |                                                                                                                                                                            |
| K 500 x 200                  | 500              | 200              | 10        | 16     | 20            | 228.4           | 179.2       | 29,940                        | 52,189          | 14.79                      | 15.7  | 1,997.6            | 2,046.6         |                                                                                                                                                                            |
| K 600 x 200                  | 600              | 200              | 11        | 17     | 22            | 268.8           | 212         | 79,880                        | 83,229          | 17.24                      | 17.24 | 2,662.7            | 2,724.4         |                                                                                                                                                                            |
| K 588 x 300                  | 588              | 300              | 12        | 20     | 28            | 385             | 302         | 127,020                       | 132,585         | 18.16                      | 18.16 | 4,320.4            | 4,419.5         |                                                                                                                                                                            |
| K 700 x 300                  | 700              | 300              | 13        | 24     | 28            | 471             | 369.7       | 211,800                       | 220,791         | 21.21                      | 21.65 | 6,051.4            | 6,193.3         |                                                                                                                                                                            |
| K 800 x 300                  | 800              | 300              | 14        | 26     | 28            | 534.8           | 419.8       | 303,700                       | 315,027         | 23.83                      | 24.27 | 7,592.5            | 7,740.2         |                                                                                                                                                                            |



## NOTE :

- $H = H/2$  = Height of T-Beam
- Material specification refer to Wide Flange (IWF)
- Tolerance  $H = \pm 2\text{mm}$
- Welded specification as per AWS E-6013
- Non standard sizes are available upon request and subject to minimum quantity



# GEDUNG SMP



FOTO DOKUMENTASI

PROYEK  
PEMBANGUNAN GEDUNG  
SEKOLAH SMP PETRA  
PONDOK TJANDRA - SIDOARJO



# FASAD BANGUNAN



FASAD DEPAN (UTARA)



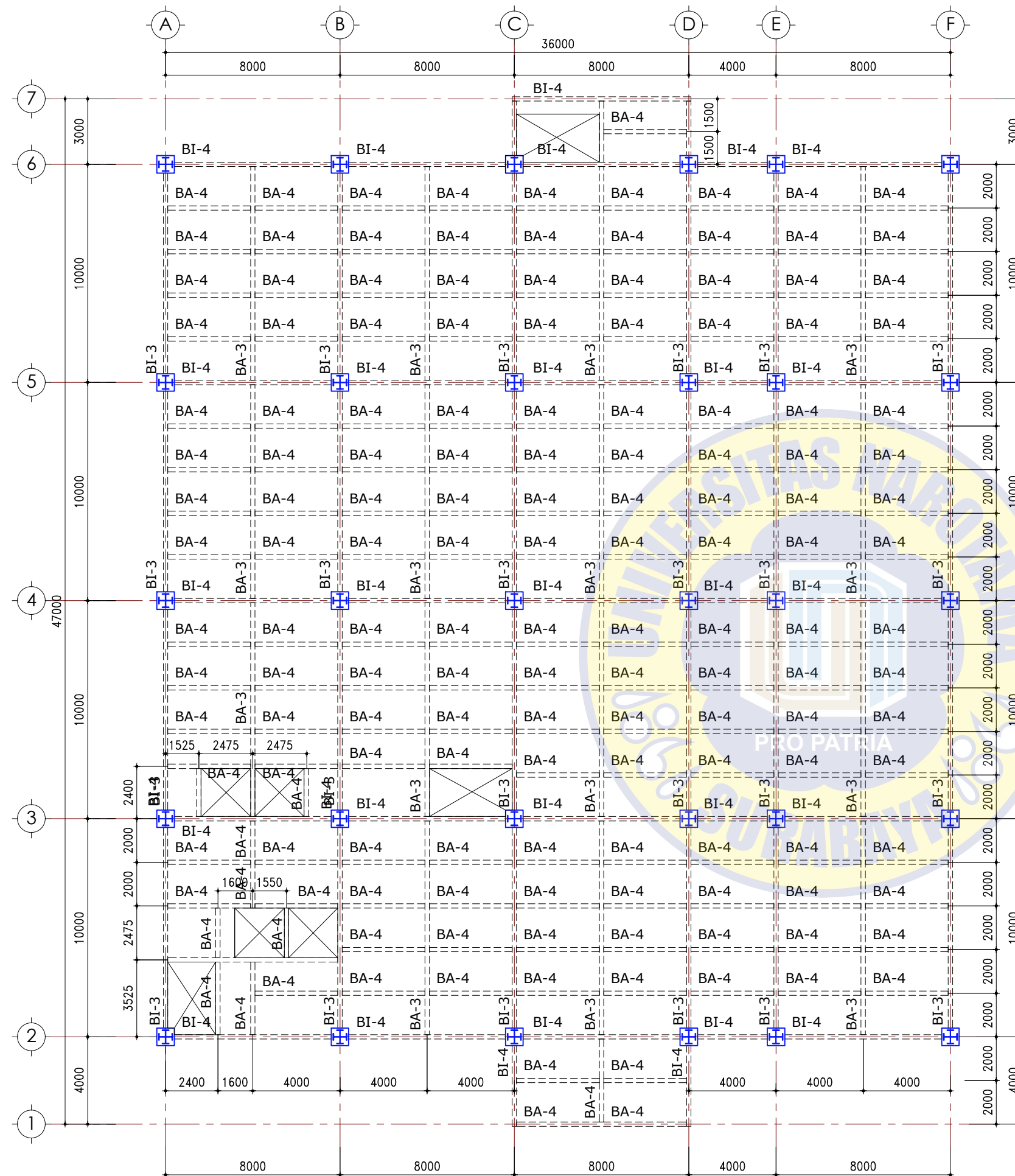
FASAD BELAKANG (SELATAN)



# FASAD BANGUNAN



FASAD SAMPING (TIMUR)



Keterangan :

|      |                  |             |
|------|------------------|-------------|
| KC   | KC 588.300.12.20 | KOLOM       |
| BI-1 | WF 600.200.11.17 | BALOK INDUK |
| BI-2 | WF 400.200.8.13  |             |
| BI-3 | WF 600.200.11.17 |             |
| BI-4 | WF 400.200.8.13  |             |
| BA-1 | WF 600.200.11.17 | BALOK ANAK  |
| BA-2 | WF 400.200.8.13  |             |
| BA-3 | WF 600.200.11.17 |             |
| BA-4 | WF 400.200.8.13  |             |

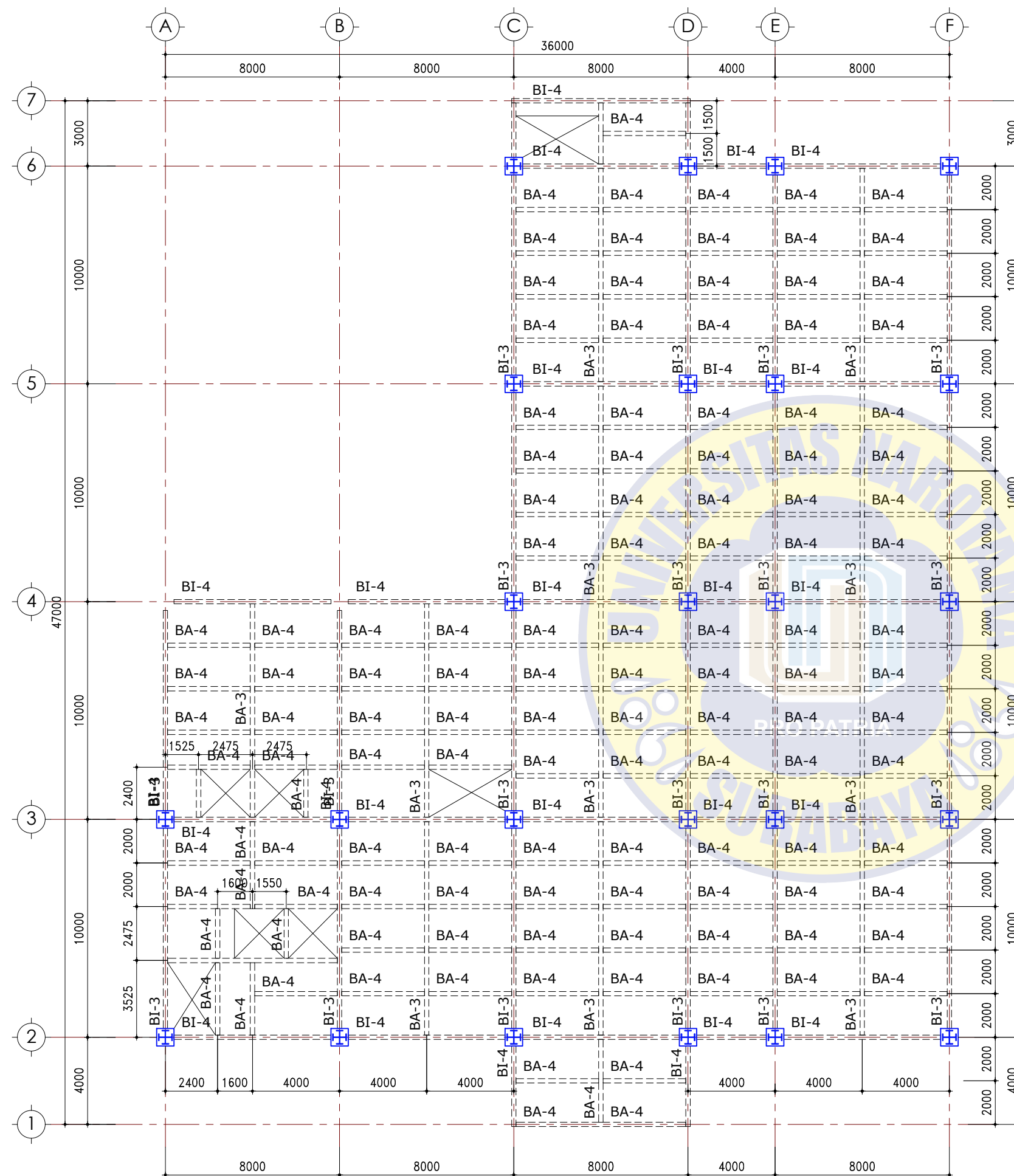
DENAH STRUKTUR LANTAI 1 & 2 (TIPIKAL)  
SKALA 1:200



FAKULTAS TEKNIK SIPIL  
UNIVERSITAS NAROTAMA  
SURABAYA

| Nama Tugas                                                                                                   | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|--------------------------------------------------------------------------------------------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| ANALISA STRUKTUR GEDUNG 10<br>LANTAI, DENGAN BAJA KOMPOSIT,<br>BEDASARKAN SNI 1729-2020 DAN SNI<br>2847-2019 | 01         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |





Keterangan :

|      |                  |             |
|------|------------------|-------------|
| KC   | KC 588.300.12.20 | KOLOM       |
| BI-1 | WF 600.200.11.17 | BALOK INDUK |
| BI-2 | WF 400.200.8.13  |             |
| BI-3 | WF 600.200.11.17 |             |
| BI-4 | WF 400.200.8.13  |             |
| BA-1 | WF 600.200.11.17 | BALOK ANAK  |
| BA-2 | WF 400.200.8.13  |             |
| BA-3 | WF 600.200.11.17 |             |
| BA-4 | WF 400.200.8.13  |             |

**DENAH STRUKTUR LANTAI 3**  
SKALA 1:200

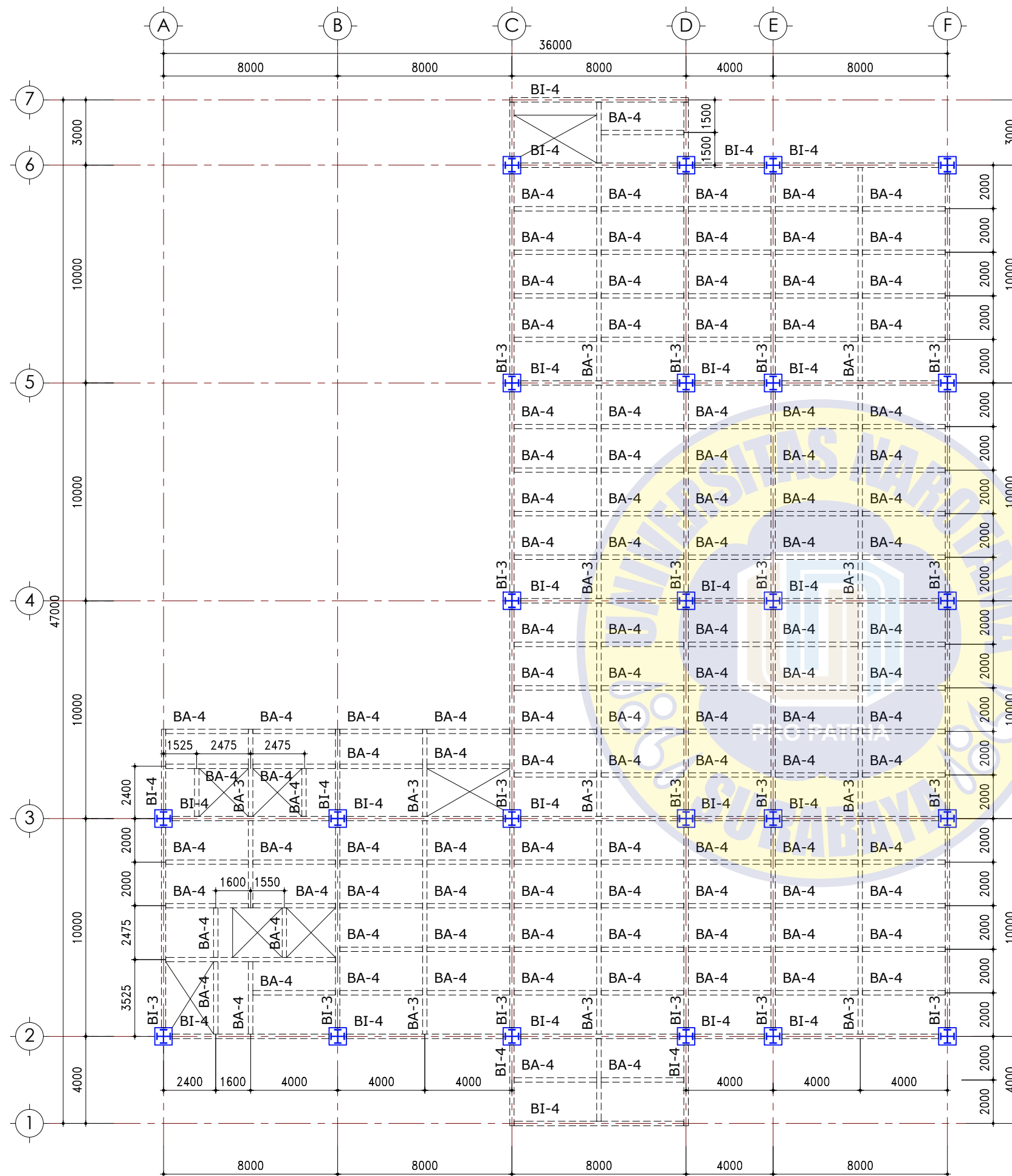


FAKULTAS TEKNIK SIPIL  
UNIVERSITAS NAROTAMA  
SURABAYA

**DENAH STRUKTUR LANTAI 3**  
LANTAI DENGAN BALOK KOMPOSIT,  
BEDASARKAN SNI 1729-2020 DAN SNI  
2847-2019

| Nama Tugas              | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|-------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| DENAH STRUKTUR LANTAI 3 | 02         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |





Keterangan :

|      |                  |             |
|------|------------------|-------------|
| KC   | KC 588.300.12.20 | KOLOM       |
| BI-1 | WF 600.200.11.17 | BALOK INDUK |
| BI-2 | WF 400.200.8.13  |             |
| BI-3 | WF 600.200.11.17 |             |
| BI-4 | WF 400.200.8.13  |             |
| BA-1 | WF 600.200.11.17 | BALOK ANAK  |
| BA-2 | WF 400.200.8.13  |             |
| BA-3 | WF 600.200.11.17 |             |
| BA-4 | WF 400.200.8.13  |             |


**DENAH STRUKTUR LANTAI 4-9 (TIPIKAL)**  
 SKALA 1:200

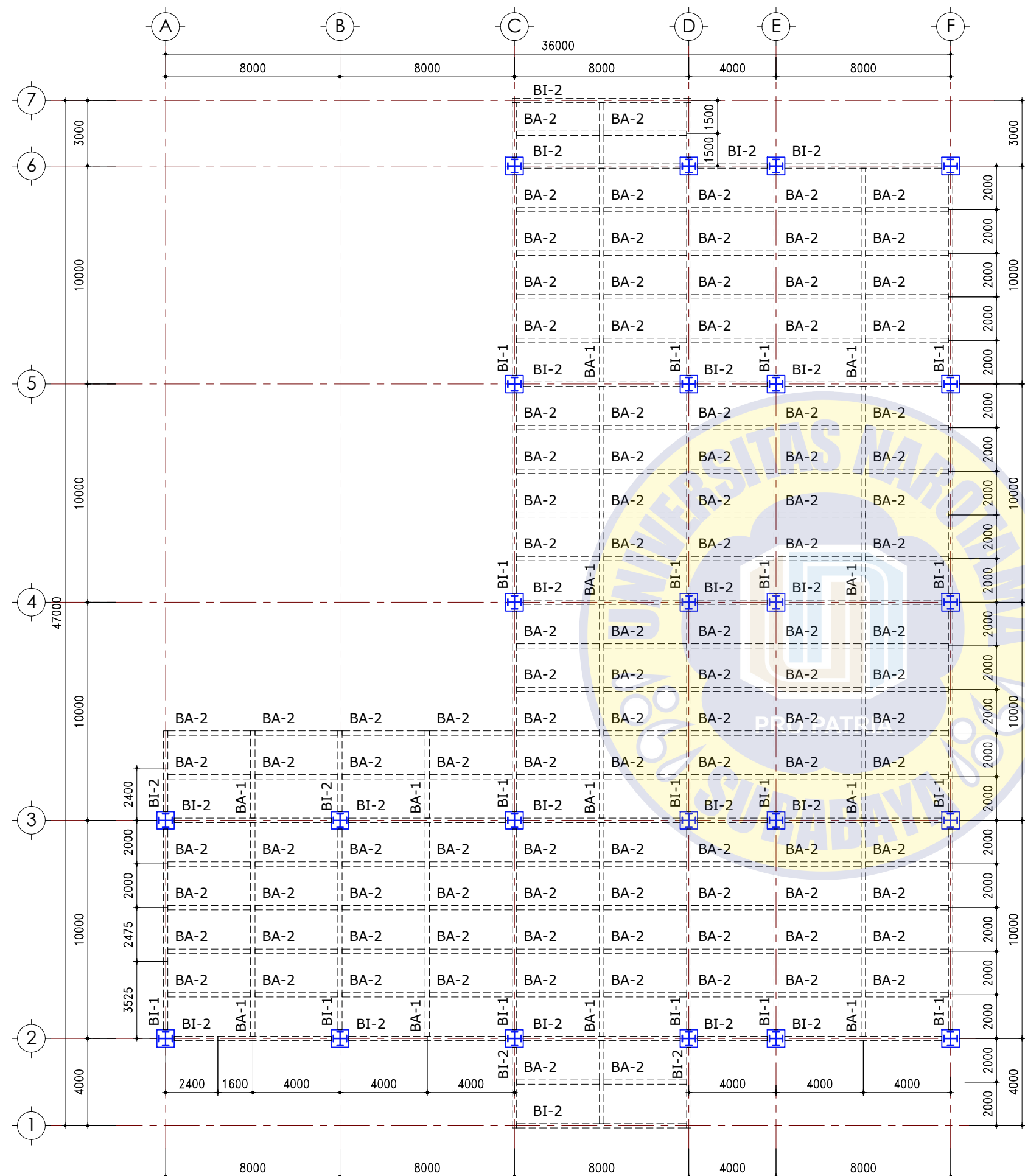


FAKULTAS TEKNIK SIPIL  
 UNIVERSITAS NAROTAMA  
 SURABAYA

**DENAH STRUKTUR LANTAI 4 S/D 9 (TIPIKAL)**  
 SKALA 1:200

DIBUAT DENGAN BAJA KOMPOSIT,  
 BERDASARKAN SNI 1729-2020 DAN SNI  
 2847-2019

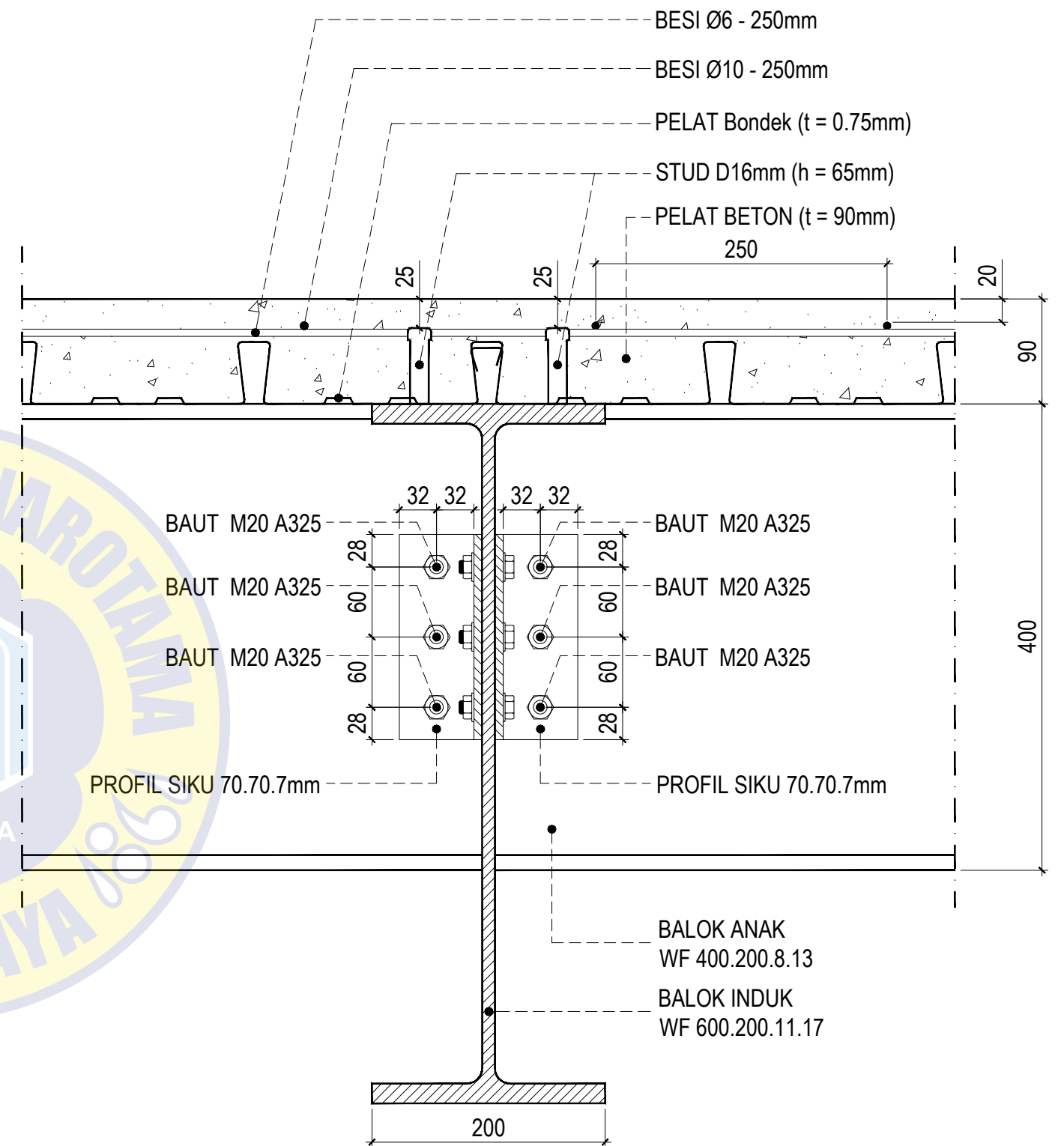
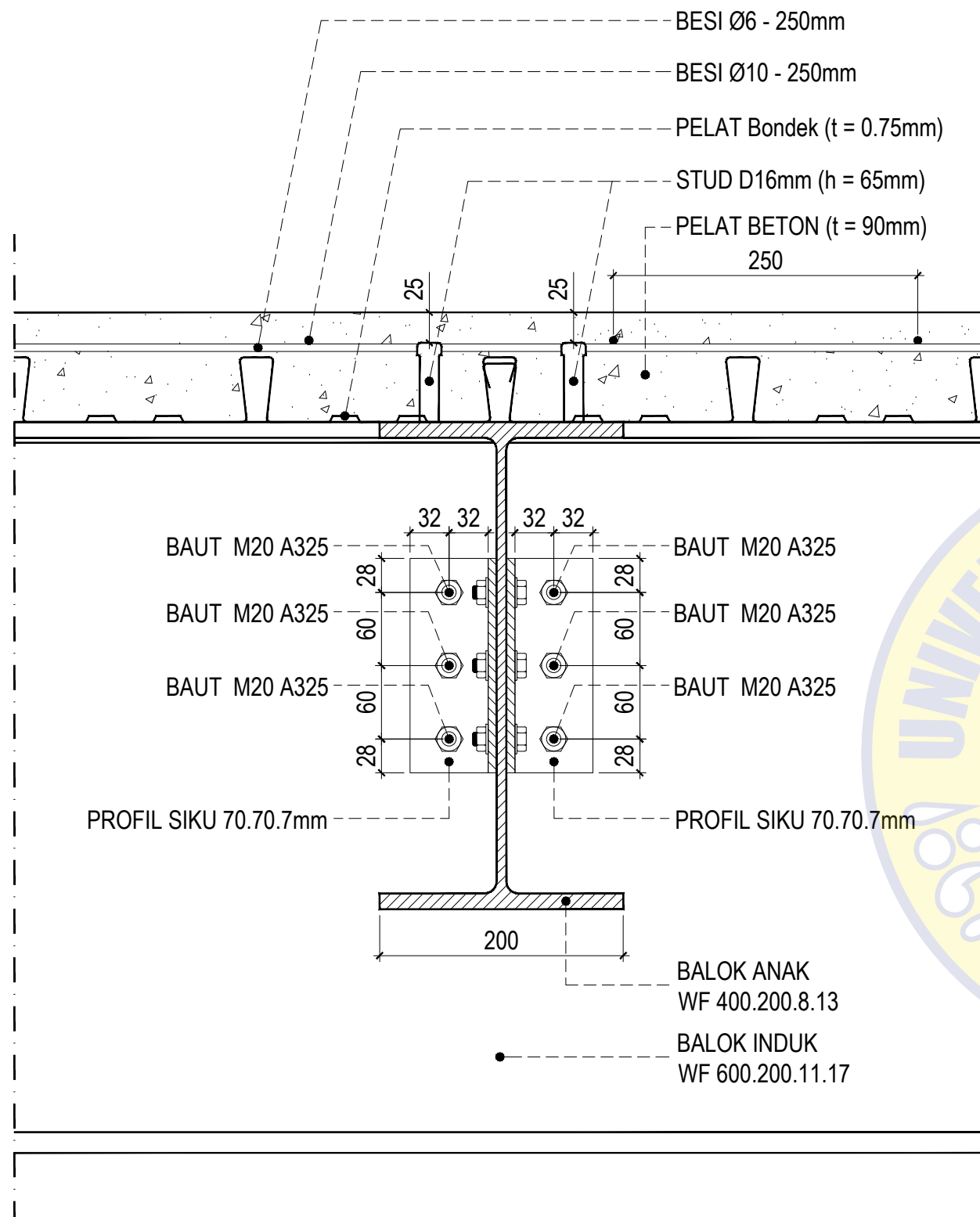
| Nama Tugas                              | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|-----------------------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| DENAH STRUKTUR LANTAI 4 S/D 9 (TIPIKAL) | 03         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |



Keterangan :

|      |                  |             |
|------|------------------|-------------|
| KC   | KC 588.300.12.20 | KOLOM       |
| BI-1 | WF 600.200.11.17 | BALOK INDUK |
| BI-2 | WF 400.200.8.13  |             |
| BI-3 | WF 600.200.11.17 |             |
| BI-4 | WF 400.200.8.13  |             |
| BA-1 | WF 600.200.11.17 | BALOK ANAK  |
| BA-2 | WF 400.200.8.13  |             |
| BA-3 | WF 600.200.11.17 |             |
| BA-4 | WF 400.200.8.13  |             |

DENAH STRUKTUR LANTAI 10 (ATAP)  
SKALA 1:200



**DETAIL SAMBUNGAN  
BALOK ANAK KE BALOK INDUK**

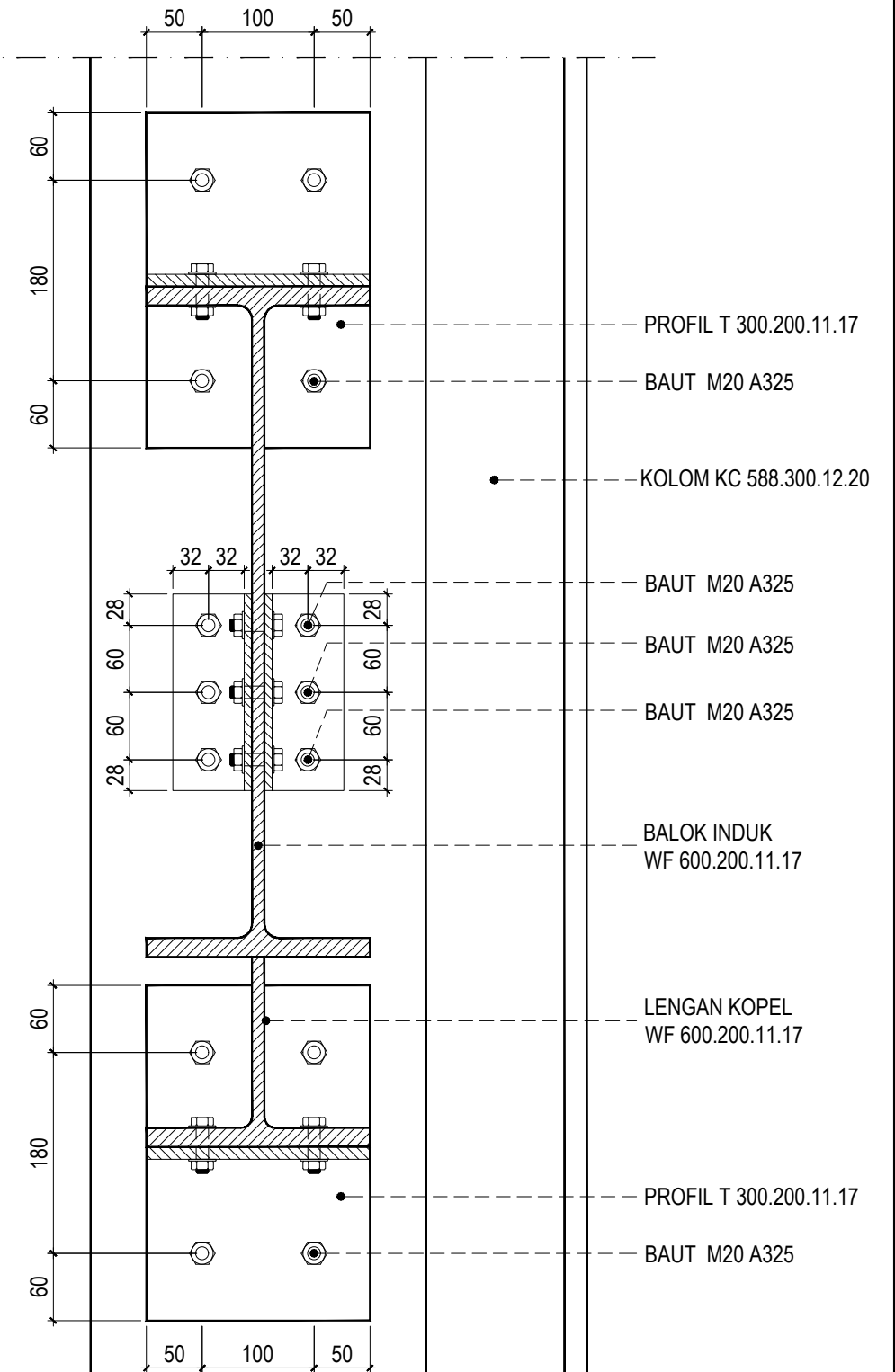
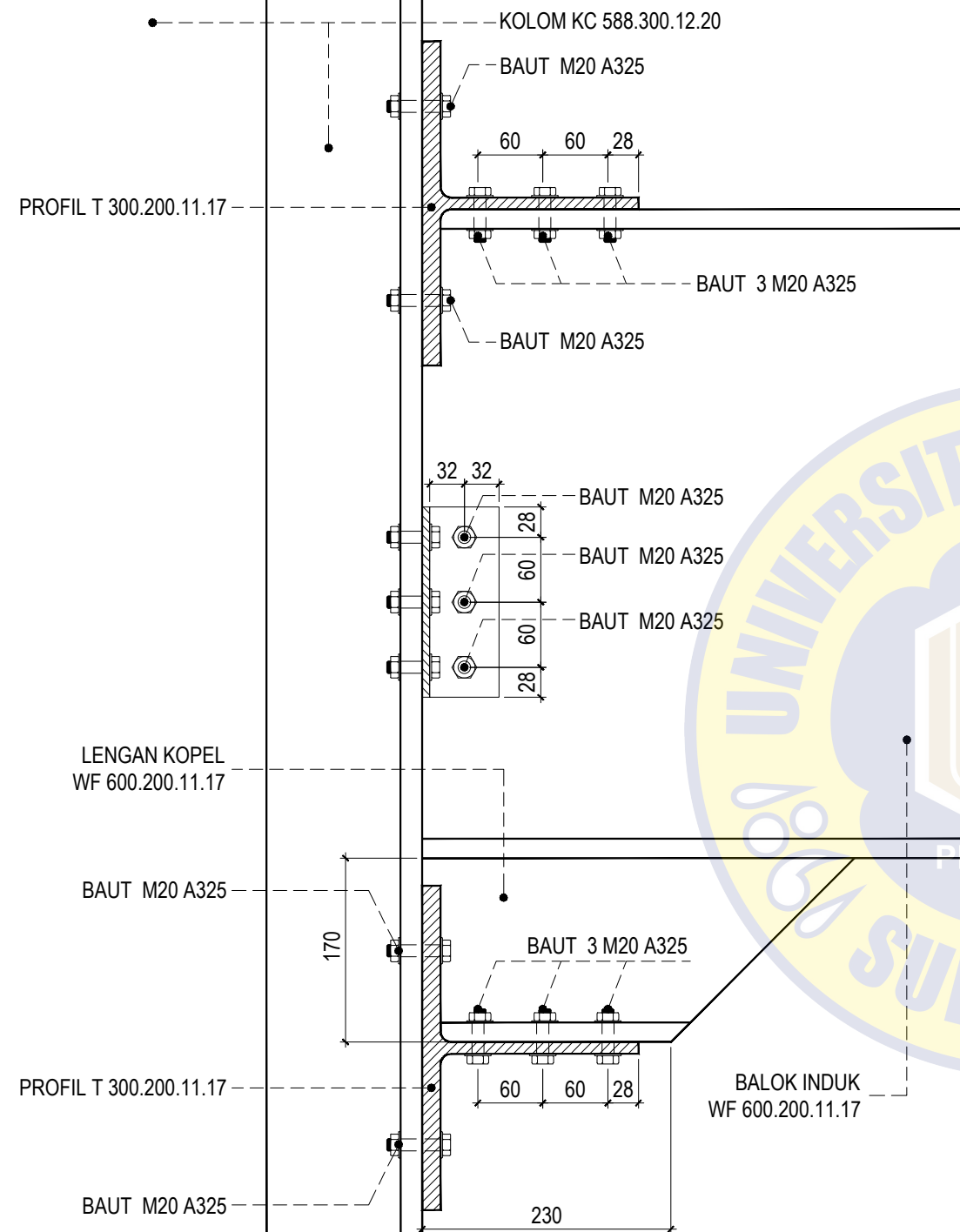
SKALA 1:5



FAKULTAS TEKNIK SIPIL  
UNIVERSITAS NAROTAMA  
SURABAYA

| Nama Tugas                                                                                          | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|-----------------------------------------------------------------------------------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| ANALISA STRUKTUR GEDUNG 10 LANTAI, DENGAN BAJA KOMPOSIT, BEDASARKAN SNI 1729-2020 DAN SNI 2847-2019 | 05         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |





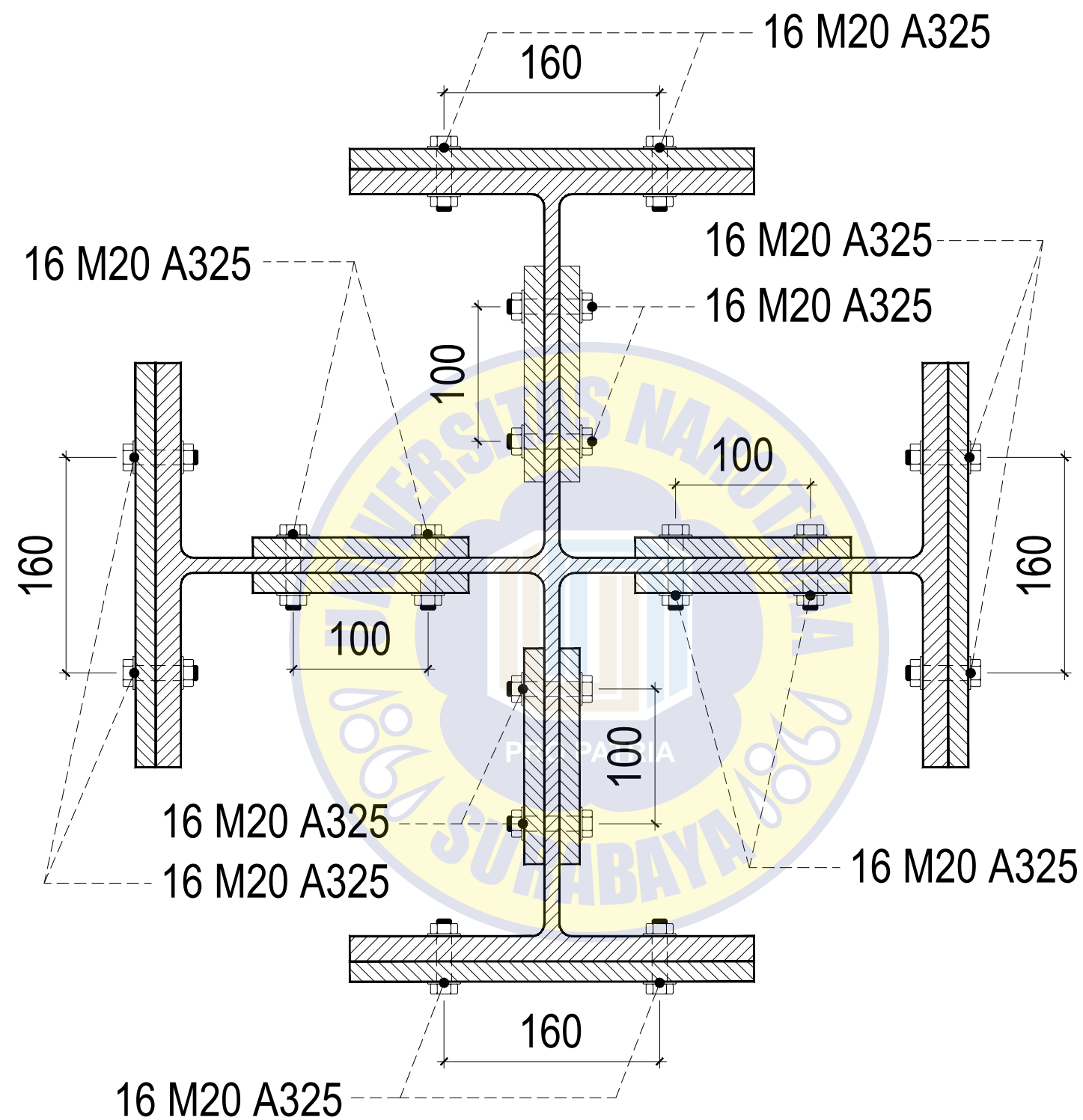
DETAIL SAMBUNGAN  
BALOK INDUK KE KOLOM KC

SKALA 1:5

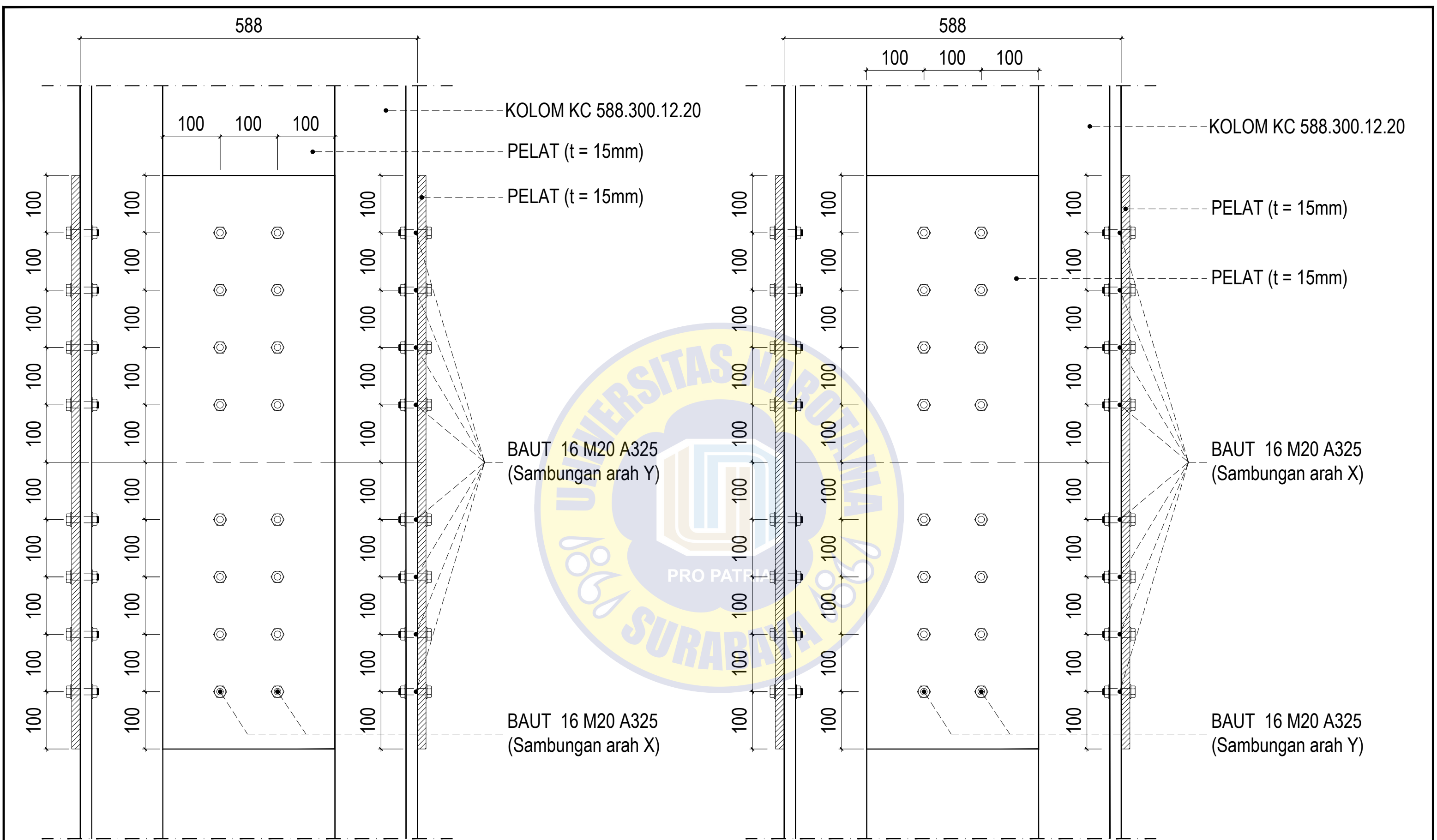


FAKULTAS TEKNIK SIPIL  
UNIVERSITAS NAROTAMA  
SURABAYA

| Nama Tugas                                                                                          | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|-----------------------------------------------------------------------------------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| ANALISA STRUKTUR GEDUNG 10 LANTAI, DENGAN BAJA KOMPOSIT, BEDASARKAN SNI 1729-2020 DAN SNI 2847-2019 | 06         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |



DETAIL SAMBUNGAN ANTAR KOLOM KC  
SKALA 1:5



DETAIL SAMBUNGAN  
ANTAR KOLOM KC



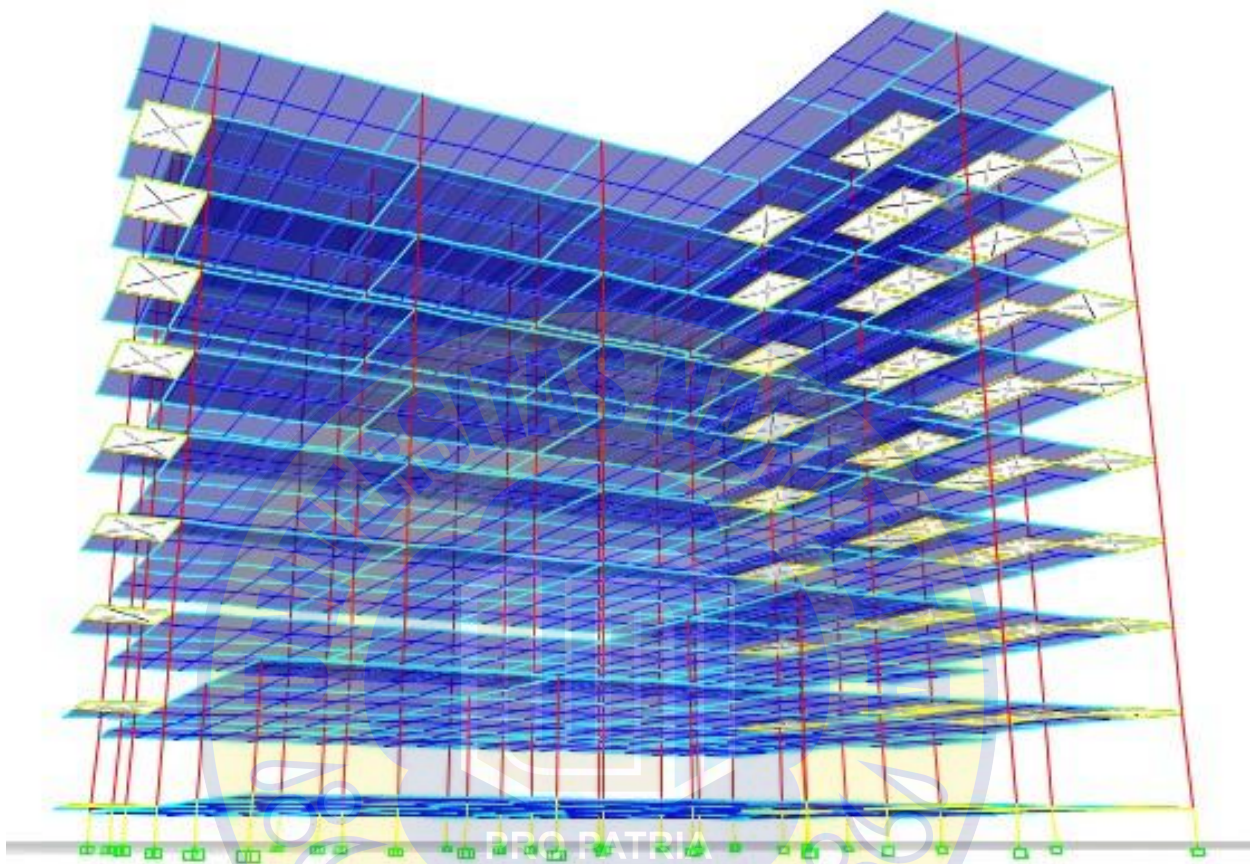
SKALA 1:5



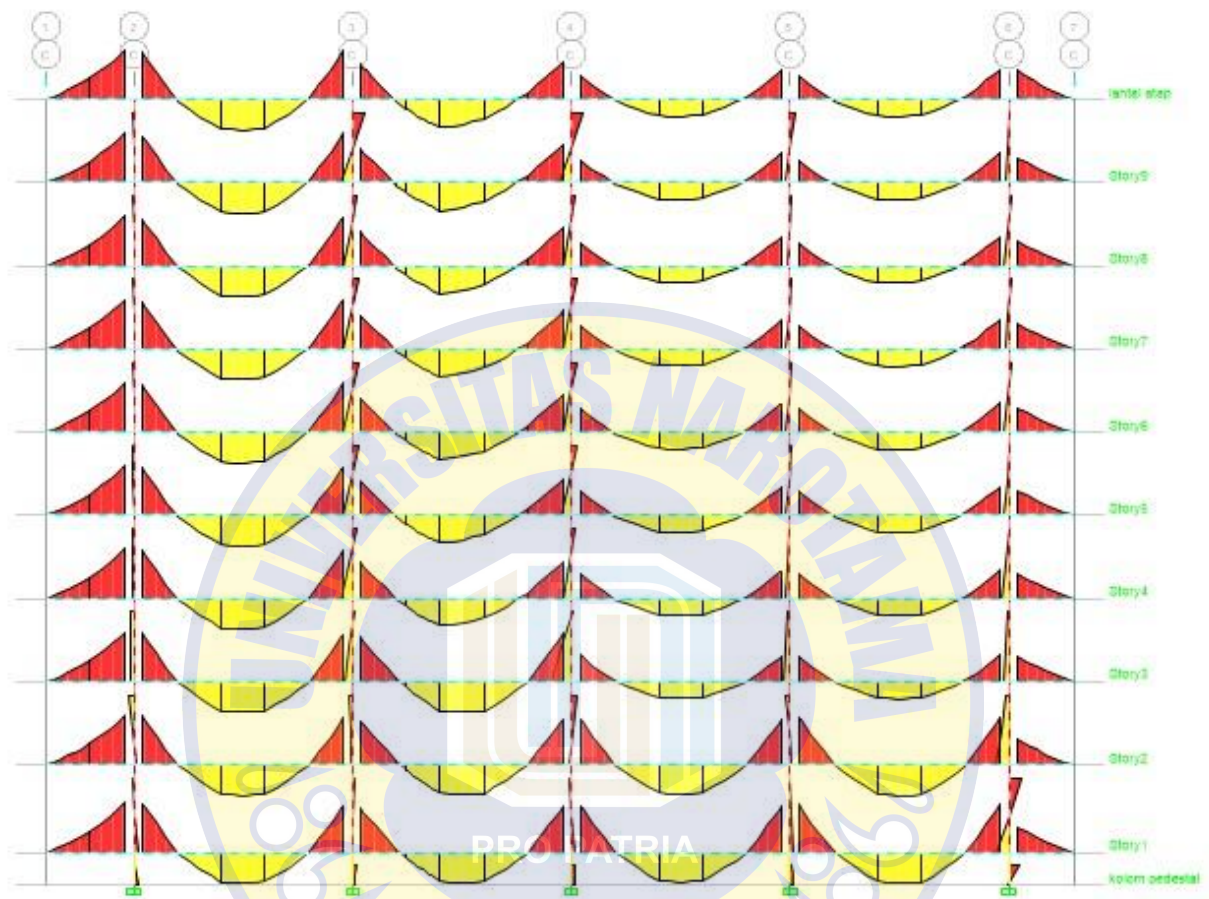
FAKULTAS TEKNIK SIPIL  
UNIVERSITAS NAROTAMA  
SURABAYA

| Nama Tugas                                                                                          | No. Lembar | Jumlah Lmbr | Kode | Dosen Pembimbing                                            | Nama & NIM Mahasiswa          |
|-----------------------------------------------------------------------------------------------------|------------|-------------|------|-------------------------------------------------------------|-------------------------------|
| ANALISA STRUKTUR GEDUNG 10 LANTAI, DENGAN BAJA KOMPOSIT, BEDASARKAN SNI 1729-2020 DAN SNI 2847-2019 | 08         | 08          | STR  | 1. Dr. Ir. Koespiadi, M.T<br>2. Sapto Budi Wasono, S.T, M.T | Eko Adi Prastyo<br>(03117049) |





**Tampak 3D (Tiga) Dimensi Struktur Bangunan**



**Output : Bidang Momen (M3) Grid C/1**



**Output : Bidang Geser (V2) Grid C/1**