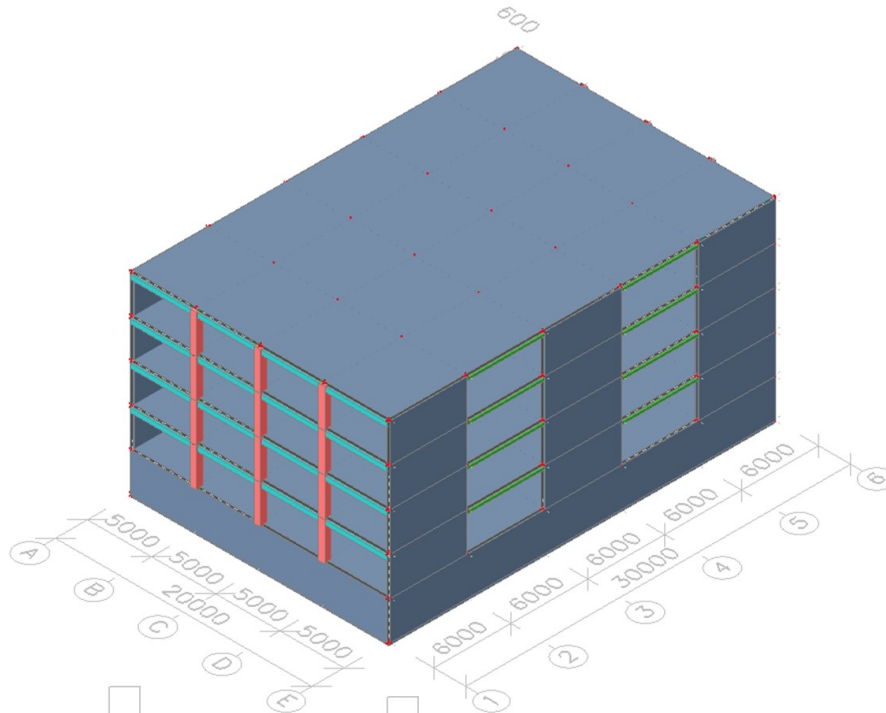
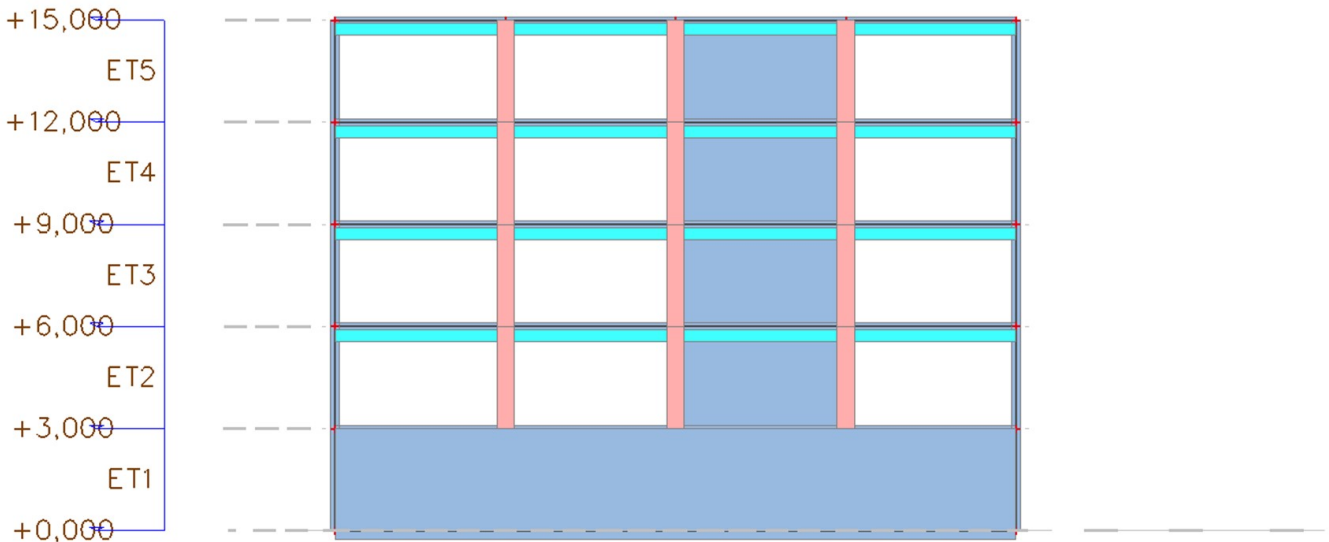


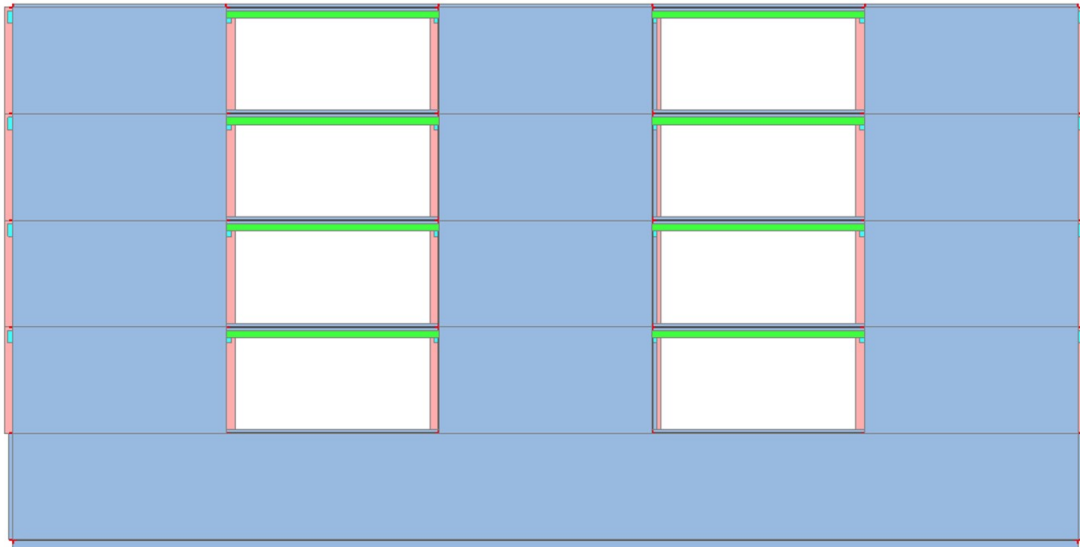
1. Aksonometrijski prikaz konstrukcije



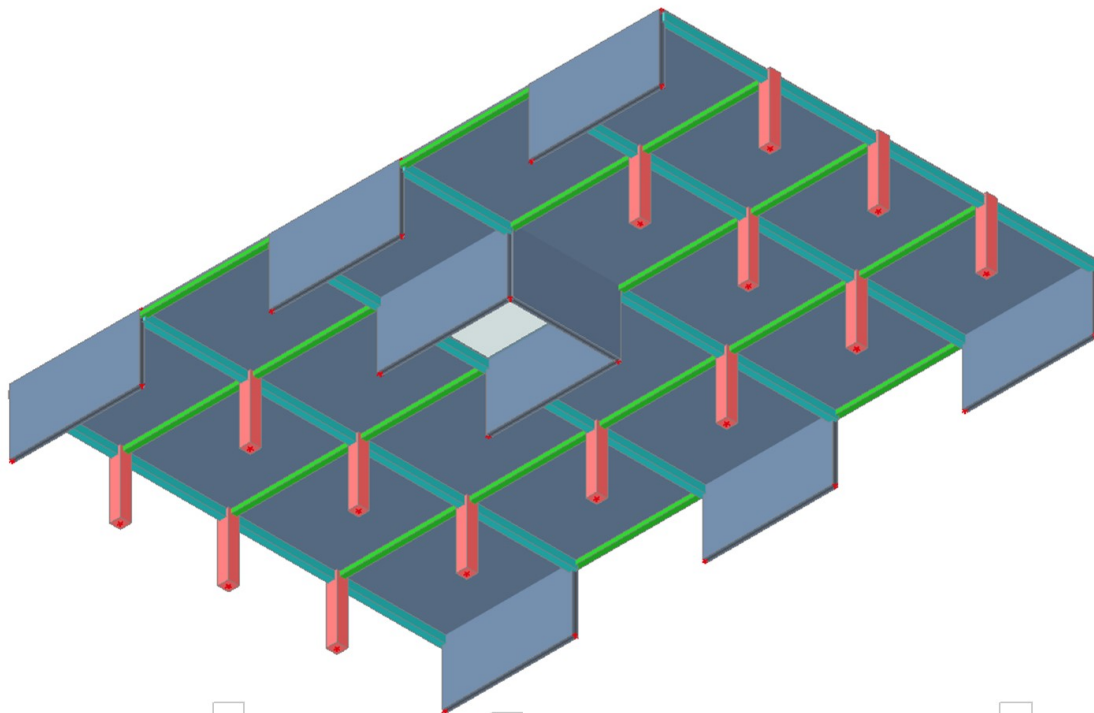
2. Pogled X-Z



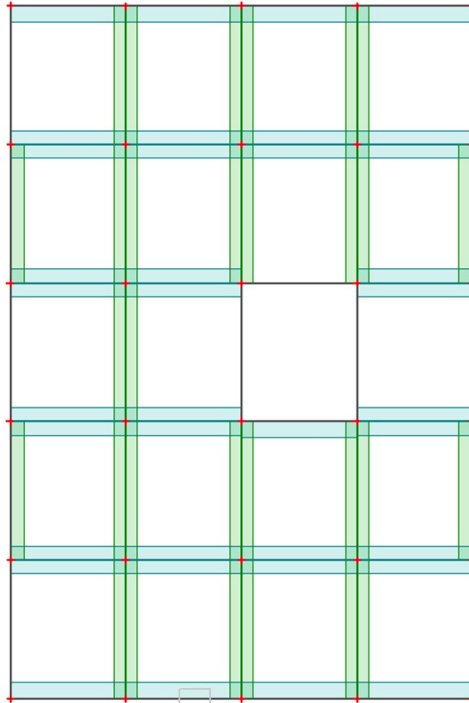
### 3. Pogled Y-Z



### 4. Aksonometrija karakteristične ploče



5. Tlocrt karakteristične ploče s efektivnim širinama



Student version

6. Cross-sections (libraries)

| STUP   |                                    |            |
|--|------------------------------------|------------|
| Type   | Rectangle                          |            |
| Detailed   | 500; 500                           |            |
| Shape type   | Thick-walled                       |            |
| Item material  | C25/30                             |            |
| Fabrication  | concrete                           |            |
| Colour   | <span style="color: red;">■</span> |            |
| A [m <sup>2</sup> ]  | 2,5000e-01                         |            |
| A <sub>y</sub> [m <sup>2</sup> ], A <sub>z</sub> [m <sup>2</sup> ]       | 2,0833e-01                         | 2,0833e-01 |
| A <sub>L</sub> [m <sup>2</sup> /m], A <sub>D</sub> [m <sup>2</sup> /m]   | 2,0000e+00                         | 2,0000e+00 |
| c <sub>y,ucs</sub> [mm], c <sub>z,ucs</sub> [mm]                         | 250                                | 250        |
| α [deg]  | 0,00                               |            |
| I <sub>y</sub> [m <sup>4</sup> ], I <sub>z</sub> [m <sup>4</sup> ]       | 5,2083e-03                         | 5,2083e-03 |
| i <sub>y</sub> [mm], i <sub>z</sub> [mm]                                 | 144                                | 144        |
| W <sub>el,y</sub> [m <sup>3</sup> ], W <sub>el,z</sub> [m <sup>3</sup> ] | 2,0833e-02                         | 2,0833e-02 |
| W <sub>pl,y</sub> [m <sup>3</sup> ], W <sub>pl,z</sub> [m <sup>3</sup> ] | 0,0000e+00                         | 0,0000e+00 |
| M <sub>pl,y,+</sub> [Nm], M <sub>pl,y,-</sub> [Nm]                       | 0,00e+00                           | 0,00e+00   |
| M <sub>pl,z,+</sub> [Nm], M <sub>pl,z,-</sub> [Nm]                       | 0,00e+00                           | 0,00e+00   |
| d <sub>y</sub> [mm], d <sub>z</sub> [mm]                                 | 0                                  | 0          |
| I <sub>t</sub> [m <sup>4</sup> ], I <sub>w</sub> [m <sup>6</sup> ]       | 8,7957e-03                         | 0,0000e+00 |
| β <sub>y</sub> [mm], β <sub>z</sub> [mm]                                 | 0                                  | 0          |

| Picture  |                                      |            |
|--|--------------------------------------|------------|
|  |                                      |            |
| rebro  |                                      |            |
| Type   | Rectangle                            |            |
| Detailed   | 200; 250                             |            |
| Shape type   | Thick-walled                         |            |
| Item material  | C25/30                               |            |
| Fabrication  | concrete                             |            |
| Colour   | <span style="color: green;">■</span> |            |
| A [m <sup>2</sup> ]  | 5,0000e-02                           |            |
| A <sub>y</sub> [m <sup>2</sup> ], A <sub>z</sub> [m <sup>2</sup> ]       | 4,1667e-02                           | 4,1667e-02 |
| A <sub>L</sub> [m <sup>2</sup> /m], A <sub>D</sub> [m <sup>2</sup> /m]   | 9,0000e-01                           | 9,0000e-01 |
| c <sub>y,ucs</sub> [mm], c <sub>z,ucs</sub> [mm]                         | 125                                  | 100        |
| α [deg]  | 0,00                                 |            |
| I <sub>y</sub> [m <sup>4</sup> ], I <sub>z</sub> [m <sup>4</sup> ]       | 1,6667e-04                           | 2,6042e-04 |
| i <sub>y</sub> [mm], i <sub>z</sub> [mm]                                 | 58                                   | 72         |
| W <sub>el,y</sub> [m <sup>3</sup> ], W <sub>el,z</sub> [m <sup>3</sup> ] | 1,6667e-03                           | 2,0833e-03 |
| W <sub>pl,y</sub> [m <sup>3</sup> ], W <sub>pl,z</sub> [m <sup>3</sup> ] | 0,0000e+00                           | 0,0000e+00 |
| M <sub>pl,y,+</sub> [Nm], M <sub>pl,y,-</sub> [Nm]                       | 0,00e+00                             | 0,00e+00   |
| M <sub>pl,z,+</sub> [Nm], M <sub>pl,z,-</sub> [Nm]                       | 0,00e+00                             | 0,00e+00   |
| d <sub>y</sub> [mm], d <sub>z</sub> [mm]                                 | 0                                    | 0          |
| I <sub>t</sub> [m <sup>4</sup> ], I <sub>w</sub> [m <sup>6</sup> ]       | 3,4365e-04                           | 0,0000e+00 |

Student version

|                                |   |   |
|--------------------------------|---|---|
| $\beta_y$ [mm], $\beta_z$ [mm] | 0 | 0 |
| Picture                        |   |   |

| GREDA  |              |            |
|--|--------------|------------|
| Type   | Rectangle    |            |
| Detailed   | 350; 300     |            |
| Shape type   | Thick-walled |            |
| Item material  | C25/30       |            |
| Fabrication  | concrete     |            |
| Colour   |              |            |
| A [m <sup>2</sup> ]  | 1,0500e-01   |            |
| A <sub>y</sub> [m <sup>2</sup> ], A <sub>z</sub> [m <sup>2</sup> ]       | 8,7500e-02   | 8,7500e-02 |
| A <sub>L</sub> [m <sup>2</sup> /m], A <sub>D</sub> [m <sup>2</sup> /m]   | 1,3000e+00   | 1,3000e+00 |
| c <sub>y,ucs</sub> [mm], c <sub>z,ucs</sub> [mm]                         | 150          | 175        |
| $\alpha$ [deg]   | 0,00         |            |
| I <sub>y</sub> [m <sup>4</sup> ], I <sub>z</sub> [m <sup>4</sup> ]       | 1,0719e-03   | 7,8750e-04 |
| i <sub>y</sub> [mm], i <sub>z</sub> [mm]                                 | 101          | 87         |
| W <sub>el,y</sub> [m <sup>3</sup> ], W <sub>el,z</sub> [m <sup>3</sup> ] | 6,1250e-03   | 5,2500e-03 |
| W <sub>pl,y</sub> [m <sup>3</sup> ], W <sub>pl,z</sub> [m <sup>3</sup> ] | 0,0000e+00   | 0,0000e+00 |
| M <sub>pl,y,+</sub> [Nm], M <sub>pl,y,-</sub> [Nm]                       | 0,00e+00     | 0,00e+00   |
| M <sub>pl,z,+</sub> [Nm], M <sub>pl,z,-</sub> [Nm]                       | 0,00e+00     | 0,00e+00   |
| d <sub>y</sub> [mm], d <sub>z</sub> [mm]                                 | 0            | 0          |
| I <sub>t</sub> [m <sup>4</sup> ], I <sub>w</sub> [m <sup>6</sup> ]       | 1,5339e-03   | 0,0000e+00 |
| $\beta_y$ [mm], $\beta_z$ [mm]   | 0            | 0          |
| Picture  |              |            |

| Explanations of symbols |   |
|-------------------------|---|
| A                       | Area  |
| A <sub>y</sub>          | Shear Area in principal y-direction                     |
| A <sub>z</sub>          | Shear Area in principal z-direction                     |
| A <sub>L</sub>          | Circumference per unit length                           |
| A <sub>D</sub>          | Drying surface per unit length                          |
| c <sub>y,ucs</sub>      | Centroid coordinate in Y-direction of Input axis system |
| c <sub>z,ucs</sub>      | Centroid coordinate in Z-direction of Input axis system |
| I <sub>y,LCS</sub>      | Second moment of area about the YLCS axis               |
| I <sub>z,LCS</sub>      | Second moment of area about the ZLCS axis               |
| I <sub>yz,LCS</sub>     | Product moment of area in the LCS system                |
| $\alpha$                | Rotation angle of the principal axis system             |
| I <sub>y</sub>          | Second moment of area about the principal y-axis        |
| I <sub>z</sub>          | Second moment of area about the principal z-axis        |
| i <sub>y</sub>          | Radius of gyration about the principal                  |

| Explanations of symbols |  |
|-------------------------|--|
|                         | y-axis   |
| i <sub>z</sub>          | Radius of gyration about the principal z-axis  |
| W <sub>el,y</sub>       | Elastic section modulus about the principal y-axis   |
| W <sub>el,z</sub>       | Elastic section modulus about the principal z-axis   |
| W <sub>pl,y</sub>       | Plastic section modulus about the principal y-axis   |
| W <sub>pl,z</sub>       | Plastic section modulus about the principal z-axis   |
| M <sub>pl,y,+</sub>     | Plastic moment about the principal y-axis for a positive My moment   |
| M <sub>pl,y,-</sub>     | Plastic moment about the principal y-axis for a negative My moment   |
| M <sub>pl,z,+</sub>     | Plastic moment about the principal z-axis for a positive Mz moment   |
| M <sub>pl,z,-</sub>     | Plastic moment about the principal z-axis for a negative Mz moment   |
| d <sub>y</sub>          | Shear center coordinate in principal y-direction measured from the centroid - Not calculated or simplified |

| Explanations of symbols |  |
|-------------------------|--|
| $d_z$                   | Shear center coordinate in principal z-direction measured from the centroid - Not calculated or simplified |
| $I_t$                   | Torsional constant - Not calculated or simplified  |

| Explanations of symbols |   |
|-------------------------|---|
| $I_w$                   | Warping constant - Not calculated or simplified   |
| $\beta_y$               | Mono-symmetry constant about the principal y-axis |
| $\beta_z$               | Mono-symmetry constant about the principal z-axis |

## 7. Materials (libraries)

| Name   | Type     | $\rho$<br>[kg/m <sup>3</sup> ] | Density in fresh state<br>[kg/m <sup>3</sup> ] | $E_{mod}$<br>[MPa] | $\mu$ | $\alpha$<br>[m/mK] | $f_{c,k,28}$<br>[MPa] | Colour |
|--------|----------|--------------------------------|--|--------------------|-------|--------------------|-----------------------|--------|
| C25/30 | Concrete | 2500,0                         | 2600,0   | 3,1500e+04         | 0.2   | 0,00               | 25,00                 | ■      |

| Explanations of symbols |   |
|-------------------------|---|
| Density in fresh state  | The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account. |

## 8. 2D member standard FEM (structure)

| Name | Element type | Element behaviour | Layer  | Type       | Material | Thickness type | Th.<br>[mm] |
|------|--------------|-------------------|--------|------------|----------|----------------|-------------|
| S1   | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 500         |
| S2   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S3   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S4   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S5   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S6   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S7   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S8   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S9   | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S10  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S11  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S12  | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 200         |
| S13  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S14  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S15  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S16  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S17  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S18  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S19  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S20  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S21  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S22  | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 200         |
| S23  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S24  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S25  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S26  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S27  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S28  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S29  | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 200         |
| S30  | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 200         |
| S31  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S32  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S33  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S34  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S35  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S36  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S37  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S38  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S39  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S40  | Standard     | Standard FEM      | Layer1 | plate (90) | C25/30   | constant       | 200         |
| S41  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S42  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |
| S43  | Standard     | Standard FEM      | Layer1 | wall (80)  | C25/30   | constant       | 250         |

| Name | Element type | Element behaviour | Layer  | Type      | Material | Thickness type | Th. [mm] |
|------|--------------|-------------------|--------|-----------|----------|----------------|----------|
| S44  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |
| S45  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |
| S46  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |
| S47  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |
| S48  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |
| S49  | Standard     | Standard FEM      | Layer1 | wall (80) | C25/30   | constant       | 250      |

9. Stiffness factors 1D (libraries)

| SAV_50   |          |       |       |
|--|----------|-------|-------|
| Type   | Standard |       |       |
| Correction factor for Ax, Correction factor for Ay, Correction factor for Az | 1.000    | 1.000 | 1.000 |
| Correction factor for Ix, Correction factor for Iy, Correction factor for Iz | 0.100    | 0.500 | 0.500 |

10. Stiffness factors 2D (libraries)

| SF2D1  |          |       |       |       |       |       |
|--|----------|-------|-------|-------|-------|-------|
| Type   | Standard |       |       |       |       |       |
| Correction factor for D11, Correction factor for D12, Correction factor for D22, Correction factor for D33, Correction factor for D44, Correction factor for D55 | 0.500    | 0.500 | 0.500 | 0.100 | 0.500 | 0.500 |
| Correction factor for d11, Correction factor for d12, Correction factor for d22, Correction factor for d33   | 1.000    | 1.000 | 1.000 | 0.500 |       |       |

11. Mesh setup (solver and mesh)

|   |            |
|---|------------|
| Name  | MeshSetup1 |
| Generation of eccentric elements on members with variable height                | X          |
| Generation of nodes in connections of beam elements                             | X          |
| Generation of nodes under concentrated loads on beam elements                   | ✓          |
| Hanging nodes for prestressing  | ✓          |
| Elastic mesh  | ✓          |
| Use automatic mesh refinement   | X          |
| Connect members/nodes   | ✓          |
| Division on haunches and arbitrary members                                      | 5          |
| Division for 2D-1D upgrade  | 50         |
| Average number of tiles of 1d element   | 5          |
| Average size of 2d element/curved element [m]                                   | 0,500      |
| Minimal length of beam element [m]  | 0,100      |
| Maximal length of beam element [m]  | 1000,000   |
| Average size of cables, tendons, elements on subsoil, nonlinear soil spring [m] | 1,000      |
| Maximal out of plane angle of a quadrilateral [mrad]                            | 30,0       |
| Predefined mesh ratio   | 1.5        |
| Minimal distance between definition point and line [m]                          | 0.001      |
| Average size of panel element [m]   | 1,000      |
| Mesh refinement following the beam type   | None       |
| Definition of mesh element size for panels                                      | Manual     |

12. Storey (storey)

| Name | Description | Z-Bottom [m] | Height [m] |
|------|-------------|--------------|------------|
| ET1  | PODRUM      | 0,000        | 3,000      |
| ET2  | PRIZEMLJE   | 3,000        | 3,000      |
| ET3  | 1. KAT      | 6,000        | 3,000      |
| ET4  | 2. KAT      | 9,000        | 3,000      |
| ET5  | 3. KAT      | 12,000       | 3,000      |

| Explanations of symbols |          |
|-------------------------|----------|
| Z-Bottom                | Z-Bottom |
| Height                  | Height   |

**13. Property modifiers 1D (structure)**

| Name                      | Member | Stiffness factors | Selfweight factor | Mass factor |
|---------------------------|--------|-------------------|-------------------|-------------|
| Property modifiers 1D B1  | B1     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B2  | B2     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B3  | B3     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B4  | B4     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B5  | B5     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B6  | B6     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B7  | B7     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B8  | B8     | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B9  | B9     | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B10 | B10    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B11 | B11    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B12 | B12    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B13 | B13    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B14 | B14    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B15 | B15    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B16 | B16    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B17 | B17    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B18 | B18    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B19 | B19    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B20 | B20    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B21 | B21    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B22 | B22    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B23 | B23    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B24 | B24    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B25 | B25    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B26 | B26    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B27 | B27    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B28 | B28    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B29 | B29    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B30 | B30    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B31 | B31    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B32 | B32    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B33 | B33    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B34 | B34    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B35 | B35    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B36 | B36    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B37 | B37    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B38 | B38    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B39 | B39    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B40 | B40    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B41 | B41    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B42 | B42    | SAV_50            | 1.000             | 0.000       |
| Property modifiers 1D B43 | B43    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B44 | B44    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B45 | B45    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B46 | B46    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B47 | B47    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B48 | B48    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B49 | B49    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B50 | B50    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B51 | B51    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B52 | B52    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B53 | B53    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B54 | B54    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B55 | B55    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B56 | B56    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B57 | B57    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B58 | B58    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B59 | B59    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B60 | B60    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B61 | B61    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B62 | B62    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B63 | B63    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B64 | B64    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B65 | B65    | SAV_50            | 1.000             | 1.000       |

| Name                       | Member | Stiffness factors | Selfweight factor | Mass factor |
|----------------------------|--------|-------------------|-------------------|-------------|
| Property modifiers 1D B66  | B66    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B67  | B67    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B68  | B68    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B69  | B69    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B70  | B70    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B71  | B71    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B72  | B72    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B73  | B73    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B74  | B74    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B75  | B75    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B76  | B76    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B77  | B77    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B78  | B78    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B79  | B79    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B80  | B80    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B81  | B81    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B82  | B82    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B83  | B83    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B84  | B84    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B85  | B85    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B86  | B86    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B87  | B87    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B88  | B88    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B89  | B89    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B90  | B90    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B91  | B91    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B92  | B92    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B93  | B93    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B94  | B94    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B95  | B95    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B96  | B96    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B97  | B97    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B98  | B98    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B99  | B99    | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B100 | B100   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B101 | B101   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B102 | B102   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B103 | B103   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B104 | B104   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B105 | B105   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B106 | B106   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B107 | B107   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B108 | B108   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B109 | B109   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B110 | B110   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B111 | B111   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B112 | B112   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B113 | B113   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B114 | B114   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B115 | B115   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B116 | B116   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B117 | B117   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B118 | B118   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B119 | B119   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B120 | B120   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B121 | B121   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B122 | B122   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B123 | B123   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B124 | B124   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B125 | B125   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B126 | B126   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B127 | B127   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B128 | B128   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B129 | B129   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B130 | B130   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B131 | B131   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B132 | B132   | SAV_50            | 1.000             | 1.000       |



| Name                       | Member | Stiffness factors | Selfweight factor | Mass factor |
|----------------------------|--------|-------------------|-------------------|-------------|
| Property modifiers 1D B133 | B133   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B134 | B134   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B135 | B135   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B136 | B136   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B137 | B137   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B138 | B138   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B139 | B139   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B140 | B140   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B141 | B141   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B142 | B142   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B143 | B143   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B144 | B144   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B145 | B145   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B146 | B146   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B147 | B147   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B148 | B148   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B149 | B149   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B150 | B150   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B151 | B151   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B152 | B152   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B153 | B153   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B154 | B154   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B155 | B155   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B156 | B156   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B157 | B157   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B158 | B158   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B159 | B159   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B160 | B160   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B161 | B161   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B162 | B162   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B163 | B163   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B164 | B164   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B165 | B165   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B166 | B166   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B167 | B167   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B168 | B168   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B169 | B169   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B170 | B170   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B171 | B171   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B172 | B172   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B173 | B173   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B174 | B174   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B175 | B175   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B176 | B176   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B177 | B177   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B178 | B178   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B179 | B179   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B180 | B180   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B181 | B181   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B182 | B182   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B183 | B183   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B184 | B184   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B185 | B185   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B186 | B186   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B187 | B187   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B188 | B188   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B189 | B189   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B190 | B190   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B191 | B191   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B192 | B192   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B193 | B193   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B194 | B194   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B195 | B195   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B196 | B196   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B197 | B197   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B198 | B198   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B199 | B199   | SAV_50            | 1.000             | 1.000       |

| Name                       | Member | Stiffness factors | Selfweight factor | Mass factor |
|----------------------------|--------|-------------------|-------------------|-------------|
| Property modifiers 1D B200 | B200   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B201 | B201   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B202 | B202   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B203 | B203   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B204 | B204   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B205 | B205   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B206 | B206   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B207 | B207   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B208 | B208   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B209 | B209   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B210 | B210   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B211 | B211   | SAV_50            | 1.000             | 1.000       |
| Property modifiers 1D B212 | B212   | SAV_50            | 1.000             | 1.000       |

| Explanations of symbols |           |
|-------------------------|-----------|
| Member                  | (3,000 m) |

**14. Property modifiers 2D (structure)**

| Name                      | 2D member | Stiffness factors | Selfweight factor | Mass factor |
|---------------------------|-----------|-------------------|-------------------|-------------|
| Property modifiers 2D S1  | S1        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S2  | S2        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S3  | S3        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S4  | S4        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S5  | S5        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S6  | S6        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S7  | S7        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S8  | S8        | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S9  | S9        | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S10 | S10       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S11 | S11       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S12 | S12       | SF2D1             | 1.000             | 0.000       |
| Property modifiers 2D S13 | S13       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S14 | S14       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S15 | S15       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S16 | S16       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S17 | S17       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S18 | S18       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S19 | S19       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S20 | S20       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S21 | S21       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S22 | S22       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S23 | S23       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S24 | S24       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S25 | S25       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S26 | S26       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S27 | S27       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S28 | S28       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S29 | S29       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S30 | S30       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S31 | S31       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S32 | S32       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S33 | S33       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S34 | S34       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S35 | S35       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S36 | S36       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S37 | S37       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S38 | S38       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S39 | S39       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S40 | S40       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S41 | S41       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S42 | S42       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S43 | S43       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S44 | S44       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S45 | S45       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S46 | S46       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S47 | S47       | SF2D1             | 1.000             | 1.000       |

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| Name                      | 2D member | Stiffness factors | Selfweight factor | Mass factor |
|---------------------------|-----------|-------------------|-------------------|-------------|
| Property modifiers 2D S48 | S48       | SF2D1             | 1.000             | 1.000       |
| Property modifiers 2D S49 | S49       | SF2D1             | 1.000             | 1.000       |

## 15. Subsoils (libraries)

| Name | C1x<br>[MN/m <sup>3</sup> ] | C1z      | C1y<br>[MN/m <sup>3</sup> ] | Stiffness<br>[MN/m <sup>3</sup> ] | C2x<br>[MN/m] | C2y<br>[MN/m] |
|------|-----------------------------|----------|-----------------------------|-----------------------------------|---------------|---------------|
| tlo  | 0,0000e+00                  | Flexible | 0,0000e+00                  | 1,0000e+01                        | 0,0000e+00    | 0,0000e+00    |

## 16. 2D member supports (structure)

| Name | Type       | Subsoil | 2D member |
|------|------------|---------|-----------|
| SS1  | Individual | tlo     | S1        |
| SS2  | Individual | tlo     | S2        |
| SS3  | Individual | tlo     | S5        |
| SS4  | Individual | tlo     | S3        |
| SS5  | Individual | tlo     | S4        |

Student version

Student version