

Autodesk Robot Structural Analysis Professional 2014 - [Column - note]

RC Component Inspector

Structure | Column - View | Column - Results | Column - Reinforcement | Column - note

1 Level:

- Name:
- Reference level:
- Concrete creep coefficient: $\alpha_0 = 1.21$
- cement class: N
- Environment class: X0
- Structure class: S1

2 Column: Column3

2.1 Material properties:

- Concrete: C60/75
- Unit weight: 2501.36 (kG/m³)
- Aggregate size: 20.0 (mm)
- Longitudinal reinforcement: B500B
- Ductility class: B
- Transversal reinforcement: B500B

2.2 Geometry:

2.2.1 Rectangular	1050 x 1350 (mm)
2.2.2 Height	= 4.800
2.2.3 Slab thickness	= 0.000 (m)
2.2.4 Beam height	= 0.000 (m)
2.2.5 Cover	= 50 (mm)

2.3 Calculation options:

- Calculations according to: EN 1992-1-1:2004
- Seismic dispositions: No requirements
- Precast column: no
- Pre-design: no
- Slenderness taken into account: yes
- Compression: with bending
- Ties: to slab
- More than 50 % loads applied after 90 days: No requirements
- Fire resistance class: No requirements

2.4 Loads:

Case	Nature	Group	γ_f	N	M _{y(s)}	M _{y(l)}	M _{z(s)}	M _{z(l)}
COMBI 1	design	3	1.00	16822 (kN)	-76	-432	1595	

γ_f - load factor

2.5 Calculation results:

The "Freeze Reinforcement" option is switched on. The distribution of reinforcing bars has not been modified.

There are no SLS combinations.

The cover deviation is less than recommended by the code. Smaller deviations are allowed in structures where the quality assurance system is used. (Story parameters)

Calculation Options - EN 1992-1-1:2004 AC:2008; Regulation - EN 1990:2002

General | Concrete | Longitudinal reinfl. | Transversal reinfl.

Method of calculating basically bent rectangular columns

Based on stress distribution

Nominal stress

Nominal curvature

OK Cancel Help Save As... Delete

Precast column:

Cover (mm): Transversal reinforcement

Reinforcement optimization level: High

Minimum (relative) capacity: 1.00 Fixed Deviations

Design for simple bending: My direction Mz direction

Fire provisions...