



S-CONCRETE™

S-CONCRETE can run both stand-alone and integrated with S-FRAME®

- Reinforced concrete section design and detailing application featuring a visual editor (click/drag).
- Support for ACI 318-08, 05, 02, & 99, CSA A23.3-04 & 94, BS 8110:1997 & 1985, UBC 1997, CP 65:1999.
- Interactive and automated design in accordance with various building standards.
- Import loads from S-FRAME® including wall integration line results.
- International range of reinforcing bars.
- Axial load, flexure, shear and torsion design.
- Axial load and moment interaction diagrams.
- True biaxial bending where the resultant moment is applied at any angle.
- Slenderness effects calculations (if applicable).
- CSA shear & torsion (simplified or general method).
- Support for fiber-reinforced concrete beam sections (ACI 318-08 only) which has implications on minimum shear reinforcement requirements.
- Generate moment-curvature diagrams for any shape and add reinforcing bars and/or pre-stressing strands (optional).
- Complex moment-curvature relationships can be used for more accurate deflection estimation and realistic flexural capacity evaluation which may include strain-hardening of reinforcement and tension-stiffening of concrete.
- Generate detailed reports with pictures & numerical results.
- Export detailed drawings to AutoCAD®.
- Export drawings and numerical results to Microsoft Word® and TEDDS®.



S-CONCRETE Composite Columns

S-FRAME Member Results

Sectional Forces and Moments

S-CONCRETE Design

Results Report

Seismic Provisions

Clause References

Add Pictures to Report

S-FRAME FE Results

Wall Integration Lines

S-CONCRETE Help, Version 8.00

Shear and Torsion Provisions - Canadian Standard (CSA-A23.3-04)

Detailed On-line Help

Sectional Forces and Moments

S-CONCRETE Design

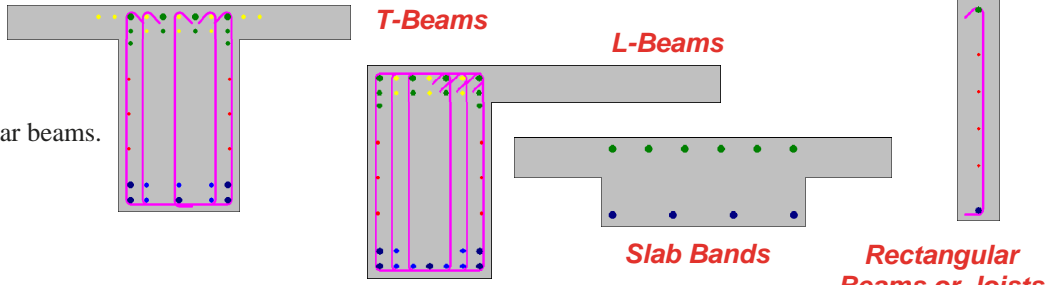
CSA-A23.3-04 Squat Wall in High Risk Seismic Region



S-CONCRETE™

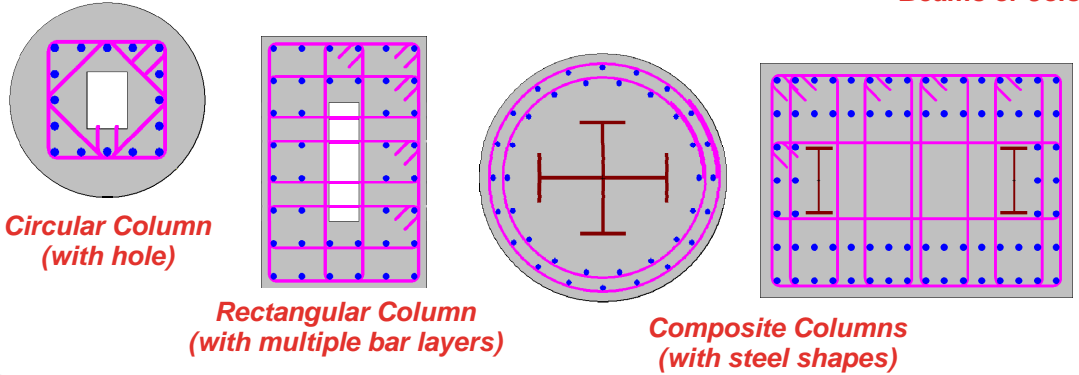
Beam Section Design and Detailing

- T-beams, L-beams, slab bands, and rectangular beams.
- Bar spacing and stirrup/tie spacing checks.
- Crack control and steel area checks.
- Beams with any number of stirrup legs.
- Multiple bar layers.
- Different bar sizes per layer.
- Face steel checks (if applicable).



Column Section Design and Detailing:

- Rectangular and circular columns.
- Columns with holes.
- Composite columns.
- Rectangular or circular ties or spiral.
- Multiple bar layers.
- Bar spacing and steel area checks.

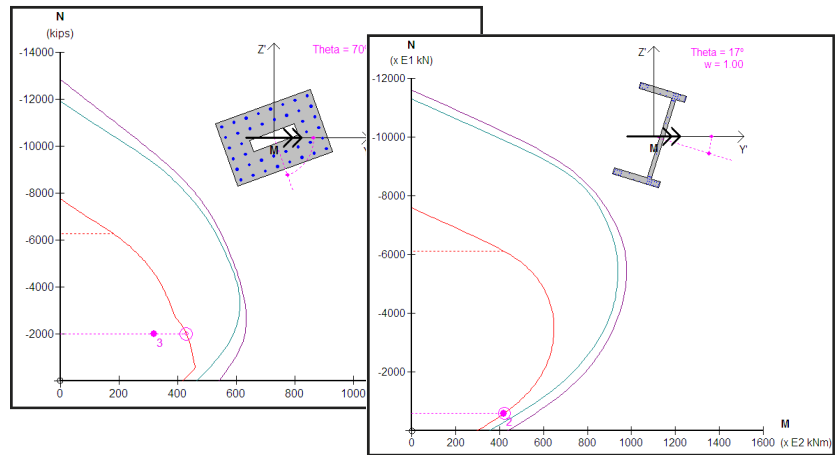


Shear Wall Section Design and Detailing

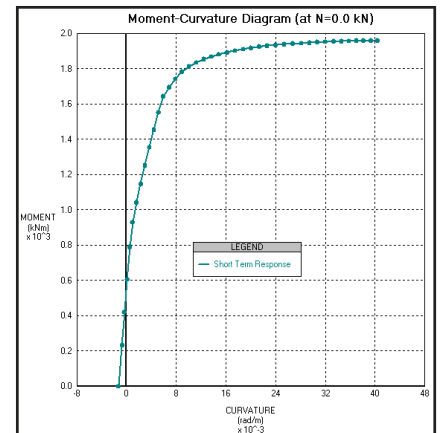
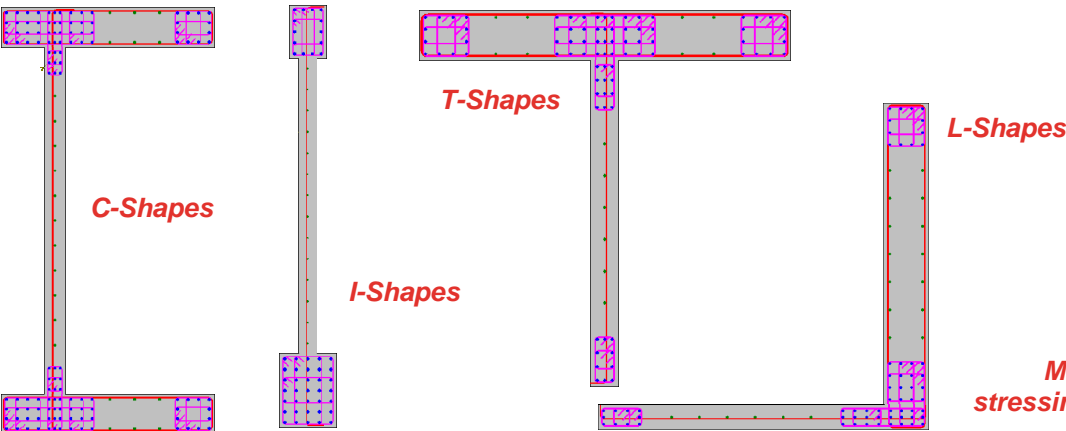
- Seismic design and detailing.
- Complex zones of reinforcing.
- Sectional and panel loading.
- Zone reinforcing checks.
- Panel reinforcing checks.
- Bar spacing checks.
- Anchorage checks.
- Interface shear or sliding shear check (CSA Only).

Seismic Provisions for shear walls ACI 318 and CSA-A23.3

- Boundary element size and detailing evaluation.
- Ductility and stability requirements.
- Curtains of reinforcing, steel area and steel ratios.
- Anchorage and development length including hooks.
- Simplified or general method of shear design.
- Concrete confinement (zone ties & configuration).
- Bar spacing requirements.
- Squat walls as defined in Clause 21.7.4 of CSA-A23.3-04.



Axial Load and Moment Interaction Diagrams (true biaxial bending)



Moment Curvature Diagrams with pre-stressing added. (Complex concrete modeling, strain-hardening of steel)