

Steel vs Concrete

Civil Engineering

The trade a frame decision really makes.

Structural steel

- High strength for its own weight
- Fabricated off site, erected fast
- Slender members and long clear spans
- Needs fire protection and coating
- Connections dominate the cost

Reinforced concrete

- Strong in compression, cheap in bulk
- Inherently fire resistant and massive
- Formed into almost any shape on site
- Slower: formwork, curing, striking
- Mass helps against sway and vibration

THE DIFFERENCE THAT MATTERS

Programme, span and fire strategy usually decide this long before cost does.

Educational reference. Frame material is a design decision for a qualified engineer under the governing codes.